



# West Chester

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STATE COLLEGE

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## GRADUATE CATALOG

1982-1983

## Communications Directory

MAILING ADDRESS:	West Chester State College, West Chester, Pa. 19380
TELEPHONES:	Dial 436 plus number in parenthesis. For offices not shown here, call the College Switchboard: 436-1000. Area Code: 215.
Academic Advising	Director for Academic Advising, Learning and Research Center (3505)
Admissions/Catalogs	Director of Admissions, 110 West Rosedale Avenue (3411)
Affirmative Action	Special Assistant to the President and Director of Affirmative Action, Philips Memorial Hall (2433)
Book Store	Intracollegiate Governmental Association, Sykes College Union Building (2242)
Business/Financial Matters	Financial Management Division, Reynolds Hall (2211)
Careers/Placement	Director of Career Development Center, Lawrence Center (2501)
Continuing Education	Director, Adult and Continuing Education, Learning and Research Center (2833) Coordinator, Evening Division, Learning and Research Center (2811)
Counseling	Counseling Center, Lawrence Center (2301)
Cultural Affairs and College Events	Program Board, Sykes College Union Building (2983)
Financial Aid/ Work Study	Director of Financial Aid to Students, Lawrence Center (2627)
Graduate Studies/ Catalogs	Dean of Graduate Studies, Learning and Research Center (2943)
Higher Education Opportunity Program, Act 101	Director of Academic Development Program, FHG Library—Phase I (2600)
Housing	Student Development Office, Sykes College Union Building (3305)
IGA Business Office	Intracollegiate Governmental Association, Sykes College Union Building (2955)
Public Relations	Director of Public Relations and College Information, 304 Smith House (3383)
Scheduling/Registration	Registrar, Learning and Research Center (3541)
Student Accounts	Student Accounts Office, Learning and Research Center (2552)
Summer Sessions	Director of Summer Sessions, Learning and Research Center (2230)
Undergraduate Academic Matters	Dean of Academic Services and Special Programs, Learning and Research Center (3518)

# West Chester

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STATE COLLEGE

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GRADUATE CATALOG  
1982•1983

West Chester State College is accredited by The Middle States Association of Colleges and Secondary Schools, The National Council for Accreditation of Teacher Education, The American Association for Health, Physical Education, and Recreation, The National Association of Schools of Music, The Council on Social Work Education, and The American Chemical Society, The National League for Nursing. West Chester State College is a member of the Northeastern Association of Graduate Schools and The United States Council of Graduate Schools.

This bulletin is not to be regarded as an irrevocable contract between the student and West Chester State College. West Chester State College reserves the right to change any provisions or requirements at any time.

The college reserves the right to cancel a course at any time if its enrollment is inadequate.

West Chester State College complies with all applicable Federal and State discrimination statutes. Education programs, activities, and employment at the college are provided without regard to marital status, race, color, national origin, sex, sexual orientation, age, or religious creed. In addition, the college attempts to remove any barriers and to provide opportunity for education and employment of handicapped persons. Inquiries regarding compliance with this policy may be directed to the Director of Affirmative Action, Philips Memorial Hall, West Chester State College.

#### OFFICE OF GRADUATE STUDIES

Hours: 8:00 a.m. to 6:00 p.m. Monday through Thursday when the college is in session. On Friday and all other days when the college is not in session, hours are 8:00 a.m. to 4:30 p.m. Hours during Summer Sessions are 8:00 a.m. to 4:00 p.m.

Room 138—Learning Research Center

High St. and Rosedale Ave.

West Chester, Pa. 19380

Telephone: Area Code 215-436-2943

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# GRADUATE PROGRAMS

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## AT WEST CHESTER

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### CERTIFICATION AND/OR MASTER OF EDUCATION

Biology  
Counseling\*  
    Elementary School Counseling  
    Secondary School Counseling  
Elementary Education  
English  
French  
German  
Health  
    School Health  
    Public Health  
    Gerontology  
Health and Physical Education  
Instructional Media Education  
Latin  
Mathematics  
Reading  
Secondary Education  
Social Science Concentration in:  
    History  
Spanish  
Special Education

### MASTER OF ARTS

Biology  
English  
French  
Geography  
History  
Mathematics  
    Pure Mathematics  
    Mathematics Education  
    Applied Computer Science  
Music History  
Physical Science  
    Physics  
    Earth Science  
    Chemistry  
    General  
Psychology  
    Social Science  
    General

Clinical  
Industrial  
Social Science  
    Geography  
    History  
    Political Science  
    Psychology  
Spanish  
Speech Pathology  
Teaching English as a Secondary Language

### MASTER OF MUSIC

Music Education  
Music Theory  
Music Composition  
Instrumental Performance  
Keyboard Performance  
Vocal Performance  
Accompanying  
Piano Pedagogy

### MASTER OF SCIENCE

Administration  
    Health  
    Political Science  
    Psychology  
    Social Welfare  
    Urban and Regional Planning  
Chemistry  
    General  
    Clinical  
Computer Science  
Counseling  
    Higher Education Counseling  
Criminal Justice  
Education Research  
Health  
    School Health  
    Public Health  
    Gerontology  
    Environmental  
Health and Physical Education  
Instructional Media

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\* At West Chester State College, the Master's Degree is required for those seeking certification in Counselor Education.

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# GRADUATE STUDIES

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## AT

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### WEST CHESTER

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*Objectives:* West Chester is committed to broadening the scholarship of the graduate student and the professional skills of the educator while arousing all students to the challenge of research.

THE GRADUATE STUDIES PROGRAM at West Chester has grown remarkably since its introduction in 1959. About 1,100 students now attend during the fall and spring semesters; some 2,500 enroll for its summer sessions. West Chester State College's graduate program is the largest within the 14 Commonwealth-owned institutions of higher learning.

The college began as the West Chester Academy in 1812 and functioned as a normal school from 1871-1927. Since it became a four-year college in 1927, West Chester has developed steadily and is now one of the major comprehensive colleges in the vicinity of Philadelphia.

Its facilities for graduate education are excellent thanks to the Commonwealth's building program begun in the 1950's and still underway. Examples are the Schmucker Science Center, a block-long complex of buildings including a planetarium, astronomical observatory, television studio, and modern laboratories; Elsie O. Bull Learning and Research Center; and the Francis Harvey Green Library, which is one of Pennsylvania's principal college libraries.

The college offers the Master of Arts, the Master of Education, the Master of Music, and the Master of Science degrees in nearly seventy disciplines or areas of study. (See the chart facing this page.)

Many of the new master's degree programs such as the M.A. in speech pathology, the M.S. in administration and the computer science option in the M.A. in mathematics have been designed to meet the particular needs of the times and the area.

Along with its degree and certification programs, West Chester offers non-degree study in a number of areas including art, economics, linguistics, speech communication, theatre arts, special education, and urban education.

For the benefit of in-service teachers and employed persons, West Chester schedules its graduate classes during late afternoons and evenings during the fall and spring semesters and during the first of the three summer sessions.

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**Graduate Summer Sessions** The 12-week summer sessions are divided into three periods: the Pre-Session of three weeks, the Regular Session of six weeks, and the Post Session of three weeks. Most Pre-Session classes meet in the evenings; almost all classes for the other two sessions meet during the daytime. (To apply, see Admissions)—Admission to summer session courses does not constitute admission to a degree program.

**The Campus** The college occupies 385 acres in the beautiful rolling countryside of Chester County. The main campus of the college occupies 94 acres within the Borough of West Chester; south campus is located on a 291-acre tract in adjacent townships.

The Borough of West Chester has been the seat of government in Chester County since 1786. With a population of about 20,000, the Borough proper is small enough to have the pleasant aspects of a tree-shaded American town, large enough to provide essential services and the substance of a vigorous community, and old enough to give the student first-hand touch with America's early history.

The heart of West Chester is its courthouse, a Classical Revival building designed in the 1840's by Thomas U. Walter, one of the architects for the Capitol in Washington, D.C. The town was settled in the early eighteenth century principally by members of the Society of Friends; charming traces of their culture remain in the community.

West Chester today is part of the rapidly growing suburban complex surrounding Philadelphia and offers interesting opportunities for the study of local, county, and regional government in a period of change and growth.

Philadelphia is 25 miles to the east and Wilmington 15 miles to the south of the campus. Thus the libraries, museums, and other cultural and historical resources of both cities are within easy reach. Valley Forge, the Brandywine Battlefield, Longwood Gardens, and other historical attractions are near West Chester.

**How to Reach West Chester** The Borough of West Chester is easily accessible from all directions both by car and public transportation. Route 3, the West Chester Pike, leads directly into town from center-city Philadelphia. From the Pennsylvania Turnpike, motorists traveling west should take Route 202 south from the Valley Forge Interchange while those traveling east can arrive via Route 100 south from the Downingtown Interchange. From the south, Route 202 from Wilmington and Routes 100 and 52 from U.S. Route 1 all lead to West Chester.

**Undergraduate Studies** Some 6,400 full-time and nearly 1,500 part-time students are enrolled in the college's undergraduate program. The college grants the Bachelor of Science in Education in four basic curricula—elementary education, secondary education, music education, and in speech pathology and audiology; the Bachelor of Arts degree in arts and letters, social and behavioral science, the natural sciences, mathematics, and music; the Bachelor of Science degree in chemistry, and the Bachelor of Music degree.

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Degree programs prepare students for specialized work in business administration, computer and information sciences, criminal justice, nursing, social welfare, and speech pathology and audiology are offered.

The Admissions Office will supply an undergraduate catalog upon request.

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# ADMISSION

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It is the responsibility of the students to know and observe all regulations and procedures for their programs and to read this catalog thoroughly. The college will not waive a regulation because a student pleads ignorance of it. A student planning to graduate should give careful attention to the dates relating to application for graduation and to other pertinent deadlines announced by the department of the Office of Graduate Studies.

## Student Responsibility

Students with a bachelor's degree from an accredited college or university in the United States or with equivalent preparation acquired in another country are eligible to apply for admission as **degree** or **non-degree** students. **Non-degree** students include those seeking certification, professional growth, or strengthened backgrounds for various professional and industrial occupations.

1. Applications are available from the Office of Graduate Studies and when completed should be returned there.
2. Applicants applying as degree students must request all institutions at which they have taken any post-secondary work to submit two official transcripts directly to the Office of Graduate Studies. West Chester State College undergraduate transcripts are available to the Office of Graduate Studies and need not be forwarded by the applicant.
3. Applicants who have unusual problems or questions are advised to request an interview with the dean of graduate studies.

## The Application Procedure

Degree candidates should apply at least two months before registration for the semester or summer session in which they wish to enroll.

## Application Deadline

Applicants will be notified by the dean of graduate studies of the acceptance or rejection of their applications.

## Notification of Admission

Those who have been accepted as graduate students will receive registration instructions by mail prior to each semester and the summer session.

## Registration

1. A baccalaureate degree from a college or university accredited in the United States or its equivalent from a school in another country.
2. A cumulative average of at least 2.50 and a grade of at least 2.75 in the area of concentration. (A equaling 4)
3. Scores from the Graduate Record Examination or the Miller Analogies Test if these are required for admission to the program in which the student wishes to enroll.
4. Approval by the department offering the desired degree program. Before such approval is given, an interview with a faculty

## Admission Requirements for Degree Students

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member may be required. The applicant must also meet any other additional requirements established for the degree program.

- 5. Approval by the dean of graduate studies.
- 6. Space available in the department.

An applicant who has academic deficiencies may be granted provisional status. The department chairperson or school coordinator will specify course work which must be taken to remove such deficiencies and which will not be credited to degree requirements.

Admission to degree study does not constitute admission to degree candidacy. After a student has satisfactorily fulfilled certain course requirements specified in the degree program and has completed 12 to 15 semester hours of work, the student applies for admission to degree candidacy.

**Admission  
Requirements for  
Non-Degree  
Students**

- 1. A baccalaureate degree from a college or university accredited in the United States or its equivalent from a school in another country.
- 2. A cumulative average of 2.0 (with A equaling 4).
- 3. A properly completed application form.
- 4. An interview with a faculty member if special questions arise during the evaluation of the application.

Admission is dependent upon the availability of space in the desired department or program of study.

Those admitted as non-degree students may include applicants who fail to qualify as degree students. There is no assurance that courses taken under nondegree status may be used later to satisfy degree requirements.

**Undergraduates**

An undergraduate who is in the final semester of work for the bachelor's degree and has an overall grade point average of at least 3.0 may, with the permission of the dean of graduate studies, enroll in up to six credits of graduate level course-work. Credits earned may be applied to a master's degree program.

**Auditors**

An auditor is a student who attends classes but who does not necessarily do other work required of studies in the course. The auditor need not meet normal admission requirements but must obtain approval to audit from the department chairperson or program coordinator and the course professor. Auditors pay the regular basic fee and must file the usual formal application for admission to the college. The student cannot receive credit for courses taken as an auditor.

**Transfer of  
Credit**

Applicants to a degree program at West Chester who have earned credits through previous graduate study at another college or university may transfer credit under certain circumstances.

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1. The credits must have been earned at an approved graduate school.
2. The courses taken must be approved by the department in which the applicant intends to enroll at West Chester.
3. No more than six credits may be transferred.
4. The grade earned for courses to be transferred must be B or better (A equals 4).
5. Two official transcripts must be submitted. These must be sent by the institution which granted the credits directly to the Office of Graduate Studies, and they must clearly indicate that the courses to be transferred are graduate courses which were given graduate credit.
6. The courses for transfer must have been taken recently enough to fall within the six-year time limitation.
7. Application forms for transfer of credit may be obtained in the Office of Graduate Studies.

Students from foreign countries may be admitted to the graduate program provided they meet certain special requirements. Foreign students, like other out-of-state students, are accepted only when space is available.

### Admission of Foreign Students

All applications and supporting documents must be on file in the Office of Graduate Studies no less than four months before the student proposes to enter the country.

The Office of Graduate Studies must receive evidence of satisfactory performance on the Test of English as a Foreign Language (normally a score of 550 is expected) unless English is the applicant's native language before application forms can be processed. Information about the TOEFL test, including test dates and locations in foreign countries, can be obtained from the Educational Testing Service, Box 899, Princeton, N.J. 08540, U.S.A. Registration forms must reach Princeton at least five weeks before the test is to be taken.

The information and documents which must be presented are

1. A completed application form.
2. An official copy of the school certificates, showing the date issued, for all work done beyond the elementary level.
3. A statement from a bank or other financial institution certifying ample financial resources to maintain oneself while a student in the United States.
4. Foreign students are required to complete a U.S. Immigration (I-20) Form.

After the application and supporting documents have been reviewed, the Office of Graduate Studies will notify the applicant of its action. Foreign students are urged to remain in their own countries until they have received notice of acceptance. The college cannot assume responsibility for their housing or welfare. Once a foreign student has been admitted, college authorities will make every reasonable effort to find suitable housing, but—except during summer sessions—West Chester does not provide dormitory accommodations for graduate students.



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# DEGREE CANDIDACY

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## AND DEGREE

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## REQUIREMENTS

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Application for degree candidacy normally should be made within the first 12 to 15 semester hours of the pre-candidacy period.

During the pre-candidacy period the student must:

1. Complete those courses which the department or program specifies as prerequisite to degree candidacy.
2. Perform satisfactorily on examinations which the department or program may require for admission to degree candidacy.
3. Maintain an overall average of at least 2.75 and an average of at least 3.00 in the concentration.

### Requirements for Admission to Degree Candidacy

1. The student must file an application for admission to degree candidacy with the dean of graduate studies and pay the \$20 application fee. Forms are available in the Office of Graduate Studies.
2. When the application has been evaluated by the department concerned, the dean of graduate studies will send a letter of acceptance or rejection to the student.
3. Upon notice of acceptance, degree candidates must confer with their advisors to establish a program of study.

### Procedure for Application to Degree Candidacy

Applicants who fail to qualify as degree candidates may reapply. They must attain an average of 3.00 in course work specified by their advisor.

### Reapplication for Degree Candidacy

The record of a student whose grade point average falls below 3.0 in his major field and 2.75 overall after acceptance to degree candidacy will be reviewed by the department advisor. If, after 24 hours of work in a degree program, the student's grade point average is still below a 3.0 in the major field and 2.75 overall, the student will be dropped from the program. An appeal for readmission may be made to the dean of graduate and continuing studies.

### Retention in a Degree Program

1. Admission to degree candidacy.
2. Completion of all required courses with a cumulative average of 2.75, an average of 3.00 in the field of specialization, and achievement of satisfactory scores on the Graduate Record Examination, if required, or the Miller Analogies Test, if required. (See program requirements.)

### Summary of Requirements for the Master's Degree

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3. Satisfactory performance on a final written and/or oral comprehensive examination conducted by the student's advisory committee in the field of specialization. (It is the responsibility of the candidate to apply for this examination.)
4. Submission and approval of the thesis or research report in those programs requiring it.
5. Fulfillment of any special examinations, requirements, or competencies which are peculiar to a department.
6. Fulfillment of all financial obligations to the college, including payment of the graduation fee, and of all other obligations including the return of college property.
7. Compliance with all academic requests from the dean of graduate studies, including submission of a letter of intent to graduate by the specified due date.

**Additional  
Requirements for  
the Master of  
Education Degree**

In addition to fulfilling these requirements, candidates for certain of the Master of Education degrees must give evidence of successful teaching experience approved by the department chairperson. Other experiences in lieu of this requirement must be approved by the dean of graduate studies.

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# FEES AND EXPENSES

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*Special Note: The fees listed below reflect charges as of the Fall Semester, 1981. For up-to-date information on fees at any given time, contact the Student Accounts Office, (215) 436-2552.*

*Fees and Expenses are subject to change without notice.*

*Unless otherwise specified, fees are paid by Visa, Master Charge or check or money order made payable to: Commonwealth of Pennsylvania. Your cancelled check or money order record serves as your receipt.*

(as of Fall Semester 1981)

Less than 9 credits	\$70 per semester hour of credit
9 through 15 credits	\$625 per semester
More than 15 credits	\$625 plus \$70 for each semester hour of credit beyond 15

**Basic Fee  
In-State and  
Out-of-State**

The \$20 Application Fee should be sent directly to the Financial Management Division.

**Application to  
Degree  
Candidacy Fee**

A fee of \$25.00 is paid at the Student Accounts Office at the time the examination is scheduled.

**Credit by  
Examination**

A late registration fee of \$25.00 is required of students scheduling and paying after the official registration deadline.

**Late  
Registration Fee**

Students pay a community center fee based on the number of credits carried, as follows:

**Community  
Center Fee**

1 through 6 credits	\$2.50 per semester
7 through 8 credits	\$5.00 per semester
9 credits or more	\$10.00 per semester

The community center fee is not refundable.

Students who audit a course (attend a course without taking credit) pay the same fees as other students.

**Course Audit Fee**

Students are expected to make full payment of fees by the registration deadline in advance of each semester. The college sends bill for fees preceding each semester. If payment is not made within the stipulated period, the student incurs a late fee.

**Financial  
Obligations**

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Payments normally fall due each academic year as follows:

Fall semester  
Spring semester

Early in July  
Early in December

Any change in these dates will be shown on Fall or Spring invoices. Checks should be made payable to the "Commonwealth of Pennsylvania" and mailed to:

Student Accounts Office  
Learning and Research Center  
West Chester State College  
West Chester, PA 19380

No student will be enrolled, graduated, or given a transcript of his record until all charges due at the particular time are paid.

## Billing Address Changes

If a student billing address changes during enrollment at the college, the new address must be given to the Student Accounts Office in the Learning and Research Center. This will avoid delayed delivery of registration materials and grades.

### Dishonored Check Fee

A fee of \$25 is charged to accounts where a stop-payment order has been entered for a check sent in payment and for checks returned marked "Insufficient Funds." An additional late registration fee is also applicable.

## Transcript Fee

\$2.00 per copy. After graduation, the first copy of the transcript will be sent without charge. Graduated students pay the fee for all copies made thereafter. Transcript request forms are available in the Office of Graduate Studies.

## Music Fees

In addition to the basic fee, graduate students in music are billed according to the following fee schedule:

Piano, Organ, Instrument, or Voice—

one half-hour lesson each week

\$55 per semester

Instrument Class or Ensemble—2 hours per week

\$35 per semester

## Rentals

Any band or orchestra instrument

\$6.00 per semester

\$1.00 per week in summer sessions

Organ

(\$12.00 per semester)

\$2.00 per week in summer sessions

## Withdrawal Procedure

Students who wish to withdraw from the college after paying their semester or summer session fees must follow the official withdrawal procedure. Withdrawal forms are available in the Registrar's Office, Learning Research Center. Completed forms must be returned to that office during the semester or summer session when the withdrawal occurs.

## Refund Policy

All refund requests must be made during the semester or session for which the refund is requested. Forms, which are available in the

Registrar's Office, Learning Research Center, should be completed and returned to that office.

First through Second Week: Full-time students who withdraw completely forfeit \$100.00. Part-time students who withdraw completely and students who drop courses receive an 80% refund.

Third Week: All students—70% refund of basic fees.

Fourth Week: All students—60% refund of basic fees.

Fifth Week: All students—50% of basic fees.

After Fifth Week: No refund of basic fees.

The community center fee is non-refundable.

Refunds will not be made to students who are suspended or who are dismissed or who drop courses without the approval of the dean of graduate studies.

There is no refund for full time students dropping to part-time status after the semester begins.

PLEASE REFER TO THE SUMMER GRADUATE CATALOG FOR SUMMER SESSION FEES AND POLICIES.

## Basic Fee Refunds

A graduation fee of \$30 is required of all degree candidates. No degree will be granted until this fee is paid. Checks should be drawn to "Commencement Fund" and delivered to the Office of Graduate Studies on or before the due date.

## Graduation Fee

The college collects a parking fee of \$20.00 per year from students eligible to utilize on-campus parking facilities. For details, consult the automobile regulations which accompany the fall semester student bills.

## Parking Fee

In order to borrow books from the library, graduate students must present identification, either a library card or an I.D. (identification) card. The fee for either card is \$2.00. The I.D. card is purchased at the IGA Office, Sykes College Union Building, the library card at the library.

## Library Card I.D. Card

Graduate students who are required by their respective departments to take undergraduate courses to remedy deficiencies *or* are taking undergraduate courses for graduate credit will be billed for those courses at the prevailing rates for graduate study.

## Fees For Crossover Registration

Credits earned and grades received will be recorded on the graduate student transcript.

Graduate students who choose to take undergraduate courses for their personal growth must register as an undergraduate student and pay the applicable fees. Credits earned and grades received will be recorded on the undergraduate transcript.

Undergraduate students who elect to take graduate courses in their final semester in accordance with college policy will be billed at the undergraduate rate provided their course load falls within normal limits of eighteen hours. Credit earned and grades received will be recorded on the undergraduate transcript. These credits so earned may later be applied to a graduate program subject to approval of the major department.

Undergraduate students who wish to begin graduate work *and* establish a graduate transcript must pay fees appropriate for graduate study for those courses to be applied toward a graduate degree.

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# FINANCIAL AID

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The National Direct Student Loan Program is a cooperative effort of the federal government and West Chester State College which enables qualified students to secure educational loans under attractive conditions. Each borrower must be:

1. Enrolled or accepted in the institution participating in the program.
2. Carrying at least  $\frac{1}{2}$  the normal full-time workload as determined by the institution.
3. In need of the amount of the loan to pursue a course of study.
4. Capable, in the institution's opinion, of maintaining satisfactory academic progress in the curriculum.

The combined total of undergraduate and graduate loans cannot exceed \$12,000. Approval of loans depends upon the student's financial need and the availability of loan funds. For further information contact the director of financial aid.

## **National Direct Student Loan Program**

This loan is a cooperative effort of private lending institutions and the state and federal governments which enables qualified students to secure long-term educational loans under attractive conditions.

To be eligible for a loan, a student must:

1. Be accepted for enrollment in an approved institution or, if enrolled, be making satisfactory academic progress.
2. Be classified as at least a half-time student.

The maximum loan per academic grade level for full-time graduate students is \$5,000. The total indebtedness permissible for all years of undergraduate and graduate study is \$25,000. For further information contact the director of financial aid.

## **Guaranteed Student Loan**

A number of graduate assistantships are available to qualified graduate students. Interested students are advised to consult the department chairpeople to determine the availability of assistantships and the candidate's eligibility for assignments. Assignments may involve part-time undergraduate teaching, participation in research projects, or other professional duties under faculty supervision.

Graduate assistants are paid at the base rate of \$2,705 for the academic year and course fees are waived.

## **Graduate Assistantships**

One \$300.00 scholarship to a graduate student in Physical Education. Applications should be submitted to the chairperson, Physical Education Department.

## **Physical Education Department Scholarship**

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**The Professor  
Russell  
Sturzebecker  
Scholarship**

The Professor Russell Sturzebecker Scholarship is a \$100 award made each semester to a “worthy and needy” graduate student in health and physical education. Through the kind generosity of Mr. John Unruh, the award is donated in honor of Professor Sturzebecker.

The recipient must be working full-time in the field of health and physical education and must be a part-time student at West Chester State College working towards a master’s degree in his professional field.

Graduate students who meet the above criteria are invited to submit a letter of application for the scholarship along with a resume of their professional and academic status. These documents should be submitted to Dr. Norman Cochran, #206, South Campus, Assistant Chairman of the Department of Health and Physical Education, before November 15th for the first semester, and before March 15th for the second semester. Selections will be made by a committee of three graduate faculty members of the Department of Health, Physical Education and Recreation.

Application forms can be secured in the office of Dr. Norman Cochran.

**Grace Cochran  
Research on  
Women Award**

An annual \$100 award in each division, graduate and undergraduate, is made for the best research on women. The award, sponsored by the Institute for Women, is given on Research on Women Day held in April of each year. Dr. Cochran, an eminent teacher and scholar, graduated from the West Chester State Normal School in 1906.

**Graduate  
Resident  
Directors**

Opportunities to serve as Graduate Resident Directors are open to married and single graduate students. Directors live in the college residence halls and provide direction for the personal, social, and educational development of the resident students. These positions are full time graduate assistantships which offer a stipend, free tuition, room and board. Preference is given to students enrolled in a counseling or psychology program and to those with residence hall living experience. Applications can be made through the Office of Residence Life, Room 206, College Union Building. (Telephone 436-3305).

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# ACADEMIC

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# INFORMATION AND

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# REGULATIONS

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The student's degree program must be completed within six years immediately prior to expected date of graduation. In cases of unusual circumstances, a request for an extension of time may be made through the appropriate department for recommendation and consideration by the dean of graduate studies.

See also Degree Candidacy and Degree Requirements

Students are classified as:

Classification  
of Students

## A. Degree Students

1. Full matriculation—granted to a student who meets all admission requirements.
2. Provisional matriculation—may be granted to a student who:
  - a. Has not taken the Graduate Record Examination, the Miller Analogies Test, or a specialized entrance examination required by the department concerned.
  - b. Is unable to present all prerequisites required by the department.
  - c. Has certain other academic deficiencies.
  - d. Fails to meet the academic average required for a degree student.

## B. Non-Degree Students

1. Certification—applies to students taking course work to gain teacher certification.
2. Professional growth—students who take graduate course work but seek neither a degree nor certification.

All students will be assigned an advisor in the department of their choice. Students are expected to take the initiative in scheduling interviews with the advisors during their course of study.

Advisory System

- |            |                                                                            |
|------------|----------------------------------------------------------------------------|
| 500 Series | Graduate level courses to which advanced undergraduates might be admitted. |
| 600 Series | Graduate courses not normally open to undergraduates.                      |

Graduate Level  
Course Numbering  
System

Course numbering within a series is at the discretion of the department offering the courses.

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<b>Undergraduate Courses for Graduate Credit</b>	Selected undergraduate courses have been identified by some departments that may be taken by graduate students (under departmental advisement) for graduate credit. See departmental listings.
<b>Workshops</b>	The number 498 following the departmental prefix indicates an "open" workshop which allows the departments to offer a variety of workshops under this designation. Such workshops may or may not carry graduate or undergraduate credit.
<b>Student Load</b>	The normal work load for a full-time student during the fall and spring semesters is 9 semester hours. The load may be increased if approval has been obtained from the student's advisor. During the summer session, the normal work load is one semester hour of work for each week of enrollment. Generally, students carry only one course during the Pre or Post Session. If permission has been given by the dean of graduate studies, students may carry more than six semester hours of work in the Regular Session.
<b>Course Credit by Examination</b>	A graduate student may obtain course credit through examination. Application may be made through the Office of Graduate Studies within the first two weeks of the semester. The student's advisor must approve the application.
<b>Transferring Credit from Other Institutions</b>	West Chester students who wish to take course work at other institutions for credit at West Chester must first obtain approval from their chairperson or coordinator. Other restrictions and requirements are the same as those given in "Transfer of Credit," page 10.
<b>Change of Status</b>	A provisional degree student may petition for full graduate standing by making a written request to the Office of Graduate Studies. Credit earned as a provisional degree student or as a non-degree student may be accepted in a degree program only upon the recommendation of the student's advisor. Provisional degree students should consult their advisors well in advance in order to select work appropriate for transfer toward the degree.
<b>Changing to Auditor Status</b>	Before the end of the add period, a student may apply to become an auditor by completing a change-in-class-status form available in the Office of Graduate Studies and obtaining necessary approval.
<b>Changes in Program</b>	In order to change from one degree program to another, a student must submit an application to Office of Graduate Studies. No fee is charged.
<b>Adding a Course</b>	Students may add a course by filing a schedule change form in the Office of the Register during the Schedule Change period.

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A. During the first week of a semester, or the equivalent time in summer sessions, a student may drop a course, thereby receiving no grade by filing a schedule change form in the Office of the Registrar during the Schedule Change Period.

B. A grade of "W" will be entered on the academic record of any student who drops a course *between the end of the first week and before the end of the fifth class week* or the equivalent in Summer Sessions.

Students who drop a course *between the end of the fifth class week and the end of the tenth class week* will receive a grade of WP or WF from their instructor.

Students who do not plan to complete a course in which they are enrolled must file a schedule change form in the Office of the Registrar. Students who fail to do this can expect to receive a grade of F for the course.

If a student is doing passing work at the time of approved withdrawal, he receives a WP, which is not treated as a grade. If he is failing, he receives a WF, computed as an F.

If a student withdraws before the sixth meeting of a class, the withdrawal will be viewed as a cancellation of enrollment, and the course will not be entered on the student's academic record. The student is entitled to a refund. See Fees and Expenses.

A student who attends six or more meetings of the class will not be eligible for a refund, and the course will be entered on the student's permanent grade record either as a WP or as a WF.

## Dropping a Course

Students wishing to withdraw from summer sessions should follow the same procedure for withdrawal from a course.

## Withdrawal from Courses in Summer Sessions

Students wishing to withdraw from the college or take a leave of absence are to go to the Office of the Registrar and follow the prescribed procedures. If illness or some other emergency interrupts the student's college work, he or she must notify the Office of the Registrar at once. Unless a student withdraws officially, F grades will be recorded for unfinished courses. The student must also notify the Office of Graduate Studies.

## Withdrawal from the College

The following grading system is used:

## Grading System

Grade	Interpretation	Quality Points
A	Superior	4
B	Above Average	3
C	Average	2
D	Below Average (see below)	1
F	Failure	
NG	No Grade (see below)	
WF	Withdrew Failing	
WP	Withdrew Passing	
Aud	Audit	

Degree students must repeat any required course for which they have received a D or F grade. All grades received for a course will remain on the student's record, but only the highest grade achieved will be used to calculate the cumulative average. A form for reporting repeated courses must be obtained from the Office of Graduate Studies, completed, and returned there.

**Removing  
No Grades**

Students must complete courses for which they have received an NG within the next 90 calendar days or the NG will become an F. The student must file in the Office of Graduate Studies a request for an extension of this time limitation which has been endorsed by the faculty member who entered the NG. The 90-day requirement does not apply to independent study nor to the thesis, research report, or practicum, or recital.

**Grade Reports**

Grade reports are mailed to the student soon after the end of a semester or summer session. Students are reminded to check their reports against grade requirements and other regulations and to have their reports at hand when consulting with advisors.

**Obtaining  
Transcripts**

Transcripts of work taken at West Chester may be obtained from the Registrar's Office. A check or money order, payable to the "Commonwealth of Pennsylvania", must accompany a written request which should include the period of attendance at the college, the curriculum pursued, Social Security number, and any change of name during enrollment. For transcript fee, see Fees and Expenses.

**Changes in Name  
or Address**

Students should notify the Office of the Registrar, the Office of Graduate Studies and their department immediately of any change of address or change in name.

**Graduate Record  
Examination**

Scores for the Graduate Record Examination are required for many of the degree programs, either at the time of application or at some later date. The prospective degree student should consult the appropriate program outline.

The Graduate Record Examination is administered by the Educational Testing Service, Box 955, Princeton, New Jersey 08540 and consists of the Aptitude Test (morning test) and the Advanced Tests (afternoon tests in the fields of concentration). Application forms and data may be obtained either by writing directly to the service or from the Counseling Center, Room 129 Lawrence Center. Application forms must be filed with the Educational Testing Service at least 15 days prior to the date of any examination.

The examinations may be taken at any of the testing centers designated by the Educational Testing Services. These tests are administered periodically at West Chester—generally in October, December, February, April, and June.

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Some degree programs require students to take the Miller Analogies Test which is administered each week at the Counseling Center, Room 129, Lawrence Center. It requires less than two hours and is given by appointment. Students requiring the test should telephone the center (215-436-2301) at least three weeks before a test date is needed. Once a date has been established, the student must pay a \$14.50 fee in person at the time the test is taken at the Counseling Center.

### Miller Analogies Test

A comprehensive examination covers the student's major field and is constructed, administered, and evaluated by the faculty of the student's major department or program. Candidates must apply for the examination with the department. They are not eligible to take the examination prior to the semester in which all courses in the concentration are earned.

### The Comprehensive (Area of Specialization) Examination

Other examinations may be required of degree students. All requirements given under the heading of the particular program should be carefully noted.

### Other Examinations

Students should consult specific programs to determine whether independent study directed toward either the thesis or a research report is required, offered optionally, or omitted.

### Research Requirements

The degree student must submit a letter of intent to graduate in person, along with a check for \$30, (made Payable to Commencement Fund) to the dean of graduate studies on or before the following dates:

### Letter of Intent to Graduate

May Graduation	—February 1
August Graduation	—June 1
December Graduation	—October 1

At that time, cap and gown orders will be taken. A copy of the letter should also be submitted to the department program coordinator.

Upon its approval by the department, the thesis must be typed in accordance with specifications which may be obtained from Departmental offices or the Office of Graduate Studies. When the dean of graduate studies has approved the thesis, the student is responsible for transmitting all required copies to the library for binding.

### Submitting the Thesis for Binding

College graduates who wish to obtain teaching certification should consult with the Office of Certification, 104 Anderson Hall.

### Graduates Seeking Initial Certification

The Instructional II (Permanent) Certificate shall be a permanent certificate issued to an applicant who has completed three years of satisfactory teaching on an Instructional I Certificate attested to by the superintendent of the school district in which his most recent service was performed, or in the case of an intermediate unit, the executive director, or in the case of an approved non-public school,

### Permanent Certification

the chief school administrator. In addition the applicant shall have completed 24 semester hours of collegiate study at an approved four-year institution and subsequent to the conferring of the baccalaureate degree.

**IN-SERVICE PROGRAMS.** The 24-semester-hour requirement may be satisfied, in whole or in part, through in-service programs approved by the Secretary of Education of the Commonwealth.

### **Educational Specialist Certification**

Commonwealth regulations also provide for certification as an educational specialist to those persons who successfully complete an approved program of study and have the recommendation of the training institution. The Educational Specialist Certificate is issued on two levels.

**Educational Specialist I (Provisional).** The Educational Specialist I Certificate shall be issued for entry into a professional position in the schools of the Commonwealth. The applicant shall have completed an approved program of studies, shall possess a baccalaureate degree, and shall have been recommended for certification by the preparing institution.

**Educational Specialist II (Permanent).** The Educational Specialist II Certificate shall be a permanent certificate issued to an applicant who shall have completed three years of satisfactory service on an Educational Specialist I Certificate, and who shall have completed 24 semester hours of post-baccalaureate or graduate study at a regionally approved institution. In addition, the applicant shall have received the recommendation of the superintendent of the school district in which his most recent service was performed, or in the case of an intermediate unit, the executive director, or in the case of an approved non-public school, the chief school administrator.

### **Directory Information**

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following categories of information: the student's name, addresses, telephone numbers, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The college will limit information which is made public to categories such as these but will not necessarily publish all such information in every listing.

Students who do not wish to have any or all of such "directory information" published without their prior consent must file notice—undergraduates in the Office of the Registrar and graduate students in the Office of Graduate Studies and Office of the Registrar. A signed, dated statement specifying items not to be published must be brought by the student to the appropriate office within the first fifteen calendar days after the beginning of the fall semester.

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# COLLEGE SERVICES

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## AND

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# STUDENT LIVING

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The Francis Harvey Green Library offers the graduate student an excellent environment for study and research. The first section of the building was completed in 1966 and the six-story addition was opened in the fall of 1976. The library complex contains a graduate study and lounge, seminar rooms, a special collections room, a map room, an enlarged instructional materials center with audio-visual facilities, an enlarged periodicals collection, and increased micro-reading facilities.

### Francis Harvey Green Library

The general collection of 400,000 volumes and 2,450 periodicals is augmented by an extensive micromedia collection representing more than 350,000 volumes including books, periodicals, newspapers, and doctoral dissertations and an extensive collection of government publications. The total resources of over three quarters of a million volumes compares favorably with other major public and private research libraries in our geographic area. The special collections include the Chester County Collection of Scientific and Historical Books; the Normal Collection (publications by the faculty and alumni); the Ehringer Collection (a collection of historical books on physical education); the Biographies of the Signers of the Declaration of Independence by John Sanderson; and the Shakespeare Folios. Other collections of note are the children's curriculum, government documents, music collections and the Philips collection of autographed books.

The college library, through its staff of 14 professional librarians, provides the services required by students and faculty working in all areas covered by the college's instructional programs. Among the many services are reference, computerized on-line literature searching, interlibrary loan and photoduplication.

The Bureau of Research and Related Services fosters the development of basic, applied, and institutional research and provides facilities for the tabulation and analysis of research data. The research function of the bureau encompasses studies initiated by the faculty and administrative staff as well as studies jointly sponsored by the college and various educational agencies and foundations.

### Bureau of Research and Related Services

The bureau assists faculty and students in securing financial support for their research projects.

Data processing services include the tabulating and summarizing of information required by various administrative divisions of the college.

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West Chester provides housing facilities for its graduate students only during the Summer Sessions. Applications for summer housing are available for men or women in the Office of Student Development in the Sykes College Union Building. Graduate students are expected to abide by the housing regulations governing undergraduate students. The college has no facilities for the housing of married students. For assistance in locating off-campus housing, contact the Office of Off-Campus Life at 436-3305. The housing office is located in the Sykes College Union Building on Rosedale Ave.

**Housing**

If storm conditions make it necessary to close the college, announcement will be made over most area radio and television stations which employ a system of code numbers. West Chester's numbers are:

**College Policy  
for Storm  
Closings**

- 853 Day Classes for Undergraduate Students
- 2853 Graduate Classes and Other Evening Classes

Two part-time physicians and four registered nurses are available to meet emergency and first-aid needs and to perform acute routine treatment of minor illnesses and minor surgical conditions. The college does not furnish other medical care or bear the costs of medical or surgical treatment or hospitalization. The community of West Chester has qualified physicians and excellent facilities at the Chester County Hospital. Health Services is located in Reynolds Hall and is open seven days a week from 8:00 AM until Midnight. Any emergencies during the night must go the Chester County Hospital Emergency Room.

**Student Health  
Service**

*Only full-time* graduate students carrying nine credits may take advantage of a group medical illness and accident insurance policy approved by the college.

The choice of two policies is offered—One is on a nine-month basis only, strictly covering accidents or injuries. The second is on a twelve-month basis, covering both medical illnesses and accidents or injuries. These policies may be obtained at a minimal premium cost from the Infirmary Health Service.

Located on the second floor of Lawrence Hall, The Counseling Center provides counseling services without charge to all undergraduate and graduate students at West Chester. The faculty in the Counseling Center includes licensed psychologists who are interested and experienced in working with college students. Students may discuss their concerns, feelings, hopes, and interests freely and in strict confidence.

**The Counseling  
Center**

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Since the Counseling Center provides services for a wide range of concerns, each student's experience will be tailored to his or her request. Students may want to clarify their vocational or educational choice, improve their interpersonal skills or resolve personal conflicts. Their choice of approach could include one or more of the following counseling center services:

## Counseling Services

1. *Individual Vocational* counseling consists of a one-to-one counseling experience which focuses upon your choice of major and vocation. Vocational choice is most solid when it is the outgrowth of understanding yourself. Such understanding requires time and thought and involves identifying your own style, values, interests and abilities. Psychological testing as well as discussion often enhances self understanding.

2. *Individual Counseling for Personal Problem Solving* consists of a one-to-one counseling experience where the focus is upon resolving personal conflicts, conflicts with others and upon improving your expertise at making personally meaningful choices. It may also help some people avoid decisions which restrict their personal growth and undermine their well-being.

3. *Group Counseling* consists of a small group of peers with one or more counselors. Such groups meet usually once weekly to provide group members with constructive learning about themselves. Groups often have a specific focus. Past groups have focused upon:

- Elimination of self defeating behavior
- Assertiveness training
- Anxiety maintenance
- Test anxiety reduction
- Weight reduction
- Career exploration
- Procrastination—how to avoid it

4. *Testing*—Information from psychological tests can be useful in increasing self understanding and can often assist in the process of vocational and educational decision making. The Counseling Center faculty is trained in the administration and interpretation of psychological tests and you and your counselor can decide whether testing might be helpful to you. Arrangements can also be made at the Counseling Center for taking Graduate Record Exam and the Miller Analogies Test—two graduate school admissions tests.

5. *Consultation Services*—The Counseling Center faculty also is available to consult with staff and faculty members of the college community. We can assist with crises, program planning, group and interpersonal communications, as well as referrals to other agencies.

The Computer Center at West Chester serves a variety of users both on and off-campus. Many of the college's administrative functions depend strongly on computer operations. These include registration, grades, class lists, billing, etc., and the student will experience this computerization in his contacts with the various college administrative offices.

## Computer Center

More importantly, we here at West Chester view the computer as an important instructional and research tool. The Computer Center of-

fers the student and faculty users time-shared, remote access to its computers. By the use of terminals scattered about the campus, more than 80 users can simultaneously be served "on-line" while others can be operating in the "batch" mode.

The availability of the computer, 24 hours a day, 7 days a week, combined with the ready availability of terminals—even in the dorms—makes computing a handy tool for the West Chester community.

The academic functions are supported by the ready availability of scientific languages and software which can be easily used, even by those without computer experience. This includes a variety of statistical software.

In addition to the courses designed to teach computing, the computer as a tool is utilized in many other classes as well, and systems have also been developed by some departments for remedial and individual study programs. The Computer Center will continue to work with faculty in developing new roles for the computer in the educational process here at West Chester.

### **Speech and Hearing Clinic**

Graduate students who need help in meeting minimal speech standards may use the services of the Speech and Hearing Clinic at no cost. The clinic is conducted by the Department of Communicative Disorders in Wayne Hall.

### **Career Development Center**

The college provides career planning and placement services for its students and graduates.

The Career Development Center libraries provide information about careers, federal and state government positions, application forms, procedures, and job requirements.

The services are available to graduate students including registration, development and mailing of credentials to prospective employers, career counseling, use of private facilities for on-campus interviews arranged by the applicant, and participation in a program of on-campus interviews arranged by the Career Development Center.

The Career Development Center is located in Lawrence Center.

### **Women's Center**

The Women's Center is open to all women of West Chester State College, and has a particular interest in serving the needs of the returning woman student. Located in the Learning and Research Center, the Women's Center provides a lounge area for conversation, study, and eating, referrals on campus and within the community, peer counseling, special interest programs (lectures, films, etc.), and a drop-off center for children. For more information call (215)436-2122.

### **Black Student Union**

The Black Student Union, which was formed in 1971, is dedicated to the creation of a relevant atmosphere for black students at West Chester. Black Student Union membership is open to all West Ches-

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ter students, faculty, and staff—regardless of race, color or creed—who have a concern for the black cause.

A major purpose of the organization is to broaden and enhance the academic and social life for black students at the college. The union's democratically structured constitution provides for an executive board, elected by the membership. Applications for membership in the Black Student Union are reviewed by the executive board. Applications for membership may be made at the Black Student Union office, in the basement of Recitation Hall.

The Institute for Women is an independent body designed to represent the interests of women on the campus. It serves as the parent organization for the Women's Center, the Women's Studies Program, and the Title IX and Sex Discrimination Board. The Institute is headed by a Director and a Board of Directors.

### **Institute for Women**

Located in 211 New Main Hall, the Institute sponsors a number of activities to enhance the self-esteem and career success of women at the College. The newest activity initiated by the Institute is the Annual Grace Cochran Research on Women Award, named after a 1906 graduate of the West Chester State Normal School; it is designed to encourage women-centered research by students. The Institute also prepares periodic reports on the status of women at the College. For more information, call (215) 436-2464, 2122.

The Office of Veterans' Affairs is located in Sykes College Union Building. All veterans, certain dependents of disabled or deceased veterans, and war orphans who wish to obtain educational benefits under the appropriate public laws must register with the Office of Veterans' Affairs during college registrations. The Veterans Administration requires students who are veterans to schedule at least nine semester hours per semester in order to receive full-time benefits under the G.I. Bill.

### **Veterans' Affairs**

The college participates in sponsoring an active chapter of Phi Delta Kappa, the international graduate honor society. Membership in the West Chester chapter, which was organized in 1956, is by invitation and recognizes scholarship in all fields of education.

### **Honor Societies**

GRADUATE STUDENTS ARE OF COURSE ELIGIBLE TO PARTICIPATE IN THE ACTIVITIES OF THE UNDERGRADUATE HONOR SOCIETIES at West Chester if they are members. These organizations are: Alpha Lambda, Delta, Alpha Mu Gamma, Alpha Psi Omega, Gamma Theta Upsilon, Kappa Delta Pi, Pi Gamma Mu, Phi Kappa Delta, Pi Kappa Delta, Pi Mu Epsilon, Phi Alpha Theta, Phi Delta Kappa, Phi Epsilon Kappa, Phi Mu Alpha Sinfonia, Psi Chi, Sigma Alpha Iota.

Under the auspices of the Intracollegiate Governmental Association, the Office of Co-Curricular Programs is charged with bringing artists of national prominence in the area of music, recitation, and theatre to the members of the college community. In addition, the

### **Cultural Affairs**

**Recreational  
Services**

college administers the William Pyle Philips Lecture Series, featuring individuals from the world of arts, politics, sciences.

Recreational Services at West Chester State College is designed to meet the leisure time needs of the college community. To meet these needs, four distinct programs offer a wide range of activities. Recreation Sports/Intramurals provide the student with opportunities to participate in individual and/or group competition. The Outdoor Adventure Program, through a variety of activities, caters to those individuals who enjoy the "outdoor adventure." The program utilizes the natural environment for recreation, instruction, and in the perfection of skills. For those free-wheeling persons, the general Recreational Program provides drop-in facilities. These facilities include gymnasiums, swimming pool and picnic area. The fourth program area is All-College Recreation. Programs of special events such as, arts and crafts, skin and scuba diving, bike sprints, folk, square and disco dances, run-for-fun, and swim-for-fun are offered.

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# ❧ STRUCTURE ❧

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## ❧ OF THE ❧

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## ❧ COLLEGE ❧

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JANUARY 1982

### FACULTY OF ARTS AND SCIENCES

Anthropology & Sociology

Art

Biology

Chemistry

Geology and Astronomy

English

Foreign Languages

History

Mathematical Sciences

Philosophy

Physics

Psychology

Speech Communication & Theatre

### FACULTY OF PROFESSIONAL STUDIES

#### SCHOOL OF ADMINISTRATION & PUBLIC AFFAIRS

Accounting

Business Administration

Criminal Justice

Economics

Government & Planning

Social Work

#### SCHOOL OF EDUCATION

Counselor, Secondary, &

Professional Education

Childhood Studies and Reading

Instructional Media

Special Education

#### SCHOOL OF HEALTH SCIENCES

Communicative Disorders

Health

Nursing

Physical Education

#### SCHOOL OF MUSIC

Instrumental Music

Keyboard Music

Music Education

Music History & Literature

Music Theory & Composition

Vocal & Choral Music

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# PROGRAMS OF STUDY AND COURSE OFFERINGS

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## Administration

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Dr. Milne, *Program Coordinator*

### CONCENTRATION ADVISORS

Dr. Mustalish, *Health Services Administration*

Dr. Milne, *Political Science*

Dr. Moore, *Psychology*

Ms. Hodgins, *Social Work*

Mr. Bielski, *Urban and Regional Planning*

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### MASTER OF SCIENCE IN ADMINISTRATION

The Departments of Health, Government and Planning, Psychology, and Social Work offer a program leading to a Master of Science in Administration with areas of concentration in (a) Health Services Administration, (b) Political Science, (c) Psychology (d) Social Work and (e) Urban and Regional Planning. This degree is designed for persons with differing undergraduate degrees who are interested in administrative careers in governmental service, health care and human services as well as other private and public organizations. The program consists of an 18 semester hour Administrative Core of courses plus 18-24 semester hours of courses in a selected concentration area as follows:

1. Administrative Core: ADM 501, 502, 503, 504, 505, 506
2. Area of Concentration\*
  - a. Health Services Administration  
Required: HEA 630, 631, 632, 611  
Six credits of Health Electives, under advisement.
  - b. Political Science  
Required: PSC 500, 600  
Any Four of: Graduate Courses Listed in this Catalog Under Political Science and Public Administration, pages 86-87.
  - c. Psychology  
Required: PSY 503, 505  
Any Two of: Graduate Courses Listed in this Catalog Under Psychology, pages 127-128.  
Six (6) hours of Free Electives Under Advisement
  - d. Social Work  
Required: SWO 520, 523, 531, 532, 550, 551, 552, 553
  - e. Urban and Regional Planning  
Required: GEO 509, 521, 525, 527  
Any Two of: GEO 505, 506, 507, 524, 526, 585

\*Refer to Departmental Listings for Course Listings.

### CERTIFICATE IN ADMINISTRATION

Persons who wish to fulfill only the Administrative Core may do so and receive a Certificate in Administration. Those interested in this option must meet the same admission criteria as full degree students.

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## ADMISSION

Applicants must submit undergraduate transcripts demonstrating quality performance in their undergraduate majors, scores from the Miller Analogies Test or Graduate Record Examination or Graduate Management Admissions Test, an essay outlining career plans, and two reference forms from professional supervisors.

**DEADLINE DATES FOR APPLICANTS:** May 1 for summer session and fall semester admission; November 1 for spring semester admission. Individuals interested in certain courses may enroll for a maximum of 9 hours on a space available basis.

## COURSE DESCRIPTIONS

### ADMINISTRATION

Symbol: ADM

**501 Administrative Theory and Environment (3)** Organizational theory and practice in public and private institutions. Legal framework for administration, application of public policy, socio-legal issues, and values of society considered.

**502 Computers for Managers. (3)** (Also CSC 502) Quantitative applications in administration. Computer as a management tool. Computer basics and management information systems.

**503 Accounting for Administration (3)** A study of accounting principles and procedures for both profit and non-profit organizations. Emphasis is on the concepts and effects of accounting policies and procedures with which the administrator will normally come into contact.

**504 Communication for Administrators (3)** Develop communication skills for the effective writing of letters, memos, reports and proposals. Non-verbal communication. Structuring and conducting meetings and presentations.

**505 Organizing Human Resources (3)** Administrative models and concepts of human behavior in formal organizations and decision processes. Personnel Administration. Effective selection, utilization and development of human resources for the total organization. Affirmative action and equal opportunity.

**506 Budgeting and Fiscal Management (3)** Budget forecasting and implementation. Analysis, planning and control of sources and allocations of funds. Measurement and control mechanism such as Program Planning Budgeting System (PPBS), Zero-Base Budgeting (ZBB), and Management by Objectives (MBO) emphasized.



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# Anthropology and Sociology

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Dr. Luck, *Chairperson*

## PROFESSORS

Marshall J. Becker, Ph.D., *University of Pennsylvania*

Glenn W. Samuelson, Ed.D., *University of Maryland*

## ASSOCIATE PROFESSORS

Harvey C. Greisman, Ph.D., *Syracuse University*

Patrick W. Luck, Ph.D., *University of Connecticut*

Martin Murphy, A.M., *University of Michigan*

## ASSISTANT PROFESSORS

Jon A. Cowen, A.M., *University of Pennsylvania*

Bonita Freeman-Witthoft, Ph.D., *University of Pennsylvania*

Dimitri I. Monos, Ph.D., *University of Pennsylvania*

Paul A. Stoller, Ph.D., *University of Texas*

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The Department of Anthropology and Sociology has suspended until further notice the offering of its M.A. degree programs and its M.Ed. degree programs in anthropology and sociology. During the term of this suspension no students will be admitted as degree candidates to the department. The department will on a limited basis, however, offer graduate courses in anthropology and sociology to graduate students from other areas as well as to advanced undergraduate majors and nonmajors.

## COURSE DESCRIPTIONS

### ANTHROPOLOGY

Symbol: ANT

**500 Strategies and Techniques in Anthropological Research (3)** The logic of anthropological research; fundamentals of research design, data collection, evaluation.

**512 Ethnographic Studies (3)** Intensive survey of a single culture area. Area for study announced in advance.

**515 Problems in Anthropology (3)** Perennial issues in anthropological explanation.

**555 Proseminar in Urban Anthropology (3)** Application of techniques of anthropological field investigation to the analysis of urban environments.

**580 (also LIN 580) Language and Culture (3)** See LIN 580.

**595 Seminar in Anthropology (3)** PREREQ: Permission of instructor.

**599 Independent Studies in Anthropology (1-3)** PREREQ: approval of instructor and department chairperson.

**600 Research Report (2)**

**610 Thesis (3-6)**

### SOCIOLOGY

Symbol: SOC

**500 Research Design (3)** The logic of sociological research; fundamentals of research design, data collection, evaluation.

**521 (also CRJ 521) Youth and Delinquency (3)** Juvenile delinquency as a form of social deviance; theories of causation and control.

**531 Social Problems (3)** Analysis of how things come to be defined as social problems.

**532 History of Sociological Theory (3)** Development of Sociological thought.

**533 American Minorities (3)** Racial and ethnic group relations.

**538 (also CRJ 538) Crime and Justice (3)** A sociological analysis of criminal law, crime statistics, causes of crime, and the administration of criminal justice.

**539 (also CRJ 539) Deviance and Control (3)** An advanced analysis of social deviance and control.

**540 (also LIN 540) Sociolinguistics (3)** See LIN 540.

**543 The Sociology of Complex Organizations (3)** The sociological analysis and study of complex organizations. PREREQ: Advanced undergraduate or graduate standing and at least six credits in sociology including SOC 200 or its equivalent or consent of instructor.

**550 Seminar in Sociology (3)** PREREQ: permission of instructor.

**590 Independent Studies in Sociology (1-3)** PREREQ: approval of instructor and department chairperson.

**600 Research Report (2)**

**610 Thesis (3-6)**

# Art

Gus V. Sermas, *Chairperson*

## PROFESSOR

Pamela Hemphill, Ph.D., *University of Pennsylvania*

## ASSOCIATE PROFESSORS

Jack G. Hawthorne, M.F.A., *University of Pennsylvania*

Perry F. Hoberg, M.A., *University of Delaware*

Victor Lasuchin, M.F.A., *University of Pennsylvania*

Gus V. Sermas, M.F.A., *University of Wisconsin*

Carolyn G. Simmendinger, M.F.A., *Tyler School of Art*

Linwood J. White, M.F.A., *University of Pennsylvania*

## ASSISTANT PROFESSORS

Richard E. Blake, B.F.A., *Tyler School of Fine Arts*

Ronald N. Defino, M.F.A., *Tyler School of Art*

William J. Rarick, M.F.A., *Tyler School of Art*

Bernice Shapiro, M.Ed., *Tyler School of Art*

## INSTRUCTOR

John Baker, B.A., *West Chester State College*

## COURSE DESCRIPTIONS

### ART

Symbol: ART

**516-517 Painting I-II (3) (3)** Individual expression in painting. Experimentation is encouraged.

**520 Painting: Independent Projects (3)** Individualized instruction at advanced level. Development of professional, personal and imaginative statements leading to formation of student's pictorial identity.

**521 Sculpture I (3)** Introduction to sculpture via the fundamentals of 3-D design. Use of basic tools, development of skills, techniques, and processes in creating sculpture. Projects in plaster, clay, stone, wood.

**522 Sculpture II (3)** Advanced problems in sculpture; continuing exploration of form, structure, process. Use and maintenance of tools. Materials; their origins and supply sources. Projects in clay, stone, wood, plastic, plaster, wire, new materials.

**525 Multi-Media Workshop in Sculpture III (3)** Fabrication methods and techniques, using wood, plastic, various metals.

**531 Ceramics I (3)** Ceramic techniques and aesthetics of clay, leading toward development of creative expression. Exercises in hand-built and wheel-thrown forms. Formulation of clay bodies, glaze bodies, and calculations; loading

and kiln firing techniques. Also, basic exercises for elementary and secondary teaching levels.

**532 Ceramics II (3)** Further development of expression for those who have mastered basic ceramic processes. Research in clay bodies, glaze chemistry, firing techniques, kiln construction. Creative problems.

**533 Ceramics: Studio Problems (3)** Individual projects involving the total or specialized areas of the ceramic process. Practical experience through helping to maintain the ceramic complex.

**534 Ceramics: Independent Projects (3)**

**541 Printmaking: Relief, Independent Projects (3)** Advanced-level study with individualized instruction. Collagraph, lino-cut, woodcut techniques. Combining various printing processes with relief printmaking.

**542 Printmaking: Silk-Screen, Independent Projects (3)** Advanced-level study with individualized instruction. Technical and aesthetic possibilities including photo-stencil, incorporation of silk-screen with other printmaking processes.

**543 Printmaking: Intaglio, Independent Projects (3)** Advanced-level study with individualized instruction. Relief etching and basic intaglio techniques for work on metal plates. Drypoint, straight line etch, soft and lift grounds, aquatint, engraving. Combining various printing processes with intaglio printmaking.

**544 Printmaking: Lithography, Independent Projects (3)** Advanced-level study with individualized instruction. Aluminum plates and stone lithography techniques. Combining various printing processes with lithography.

**546 Drawing: Independent Projects (3)** Advanced-level study with individualized instruction. Emphasis on professional, personal, and imaginative statements leading to student's iconographic identity.

**547 Two-Dimensional Design: Independent Projects (3)** Advanced-level study with individualized instruction. Design elements and analytical principles of organization. Emphasis on professional, personal, and creative statements leading to formation of professional employment.

**549 Graphic Design: Independent Projects (3)** Advanced-level study with individualized instruction. Developing means for solving communication problems of diverse character with emphasis on practical application. Projects are refined into portfolio presentations for professional employment.

**551 Art Education in the Elementary School (3)** Current trends in art education for the elementary school.

**565 Crafts: Independent Projects (3)** Projects involve varied media and their techniques and processes. Exploration of 2-D and 3-D crafts and their application in recreational and elementary school programs.

**576 Primitive Art (3)** Ritual and myth from prehistory to early Ancient Near East; contemporary primitive cultures; psychological and psychoanalytical interpretations; comparison with phenomenon of primitivistic interests of the West.

**580 European and U.S. Art (3)** For the student who is deficient in art history and wishes to augment his or her field (e.g. social studies, literature, philosophy). Analysis of the major forms and styles from Renaissance to present.

**581 The Artist and Society (3)** Personal statement of the student's commitment to art. The nature of the creative impulse; the necessity to society of creative production.

**590 Independent Studies in Art (1-3)**

**595 Latin-American Art (3)** Interpretation of 20th-century environment architecture and decoration with relationship to cultural development in Latin America.

**596 Introduction to Aesthetics (3)** Introduction to the aesthetic theories and art forms in the context of social change, philosophy and sciences, creation, and the creative process.

**597 History of Aesthetics and Art Criticism (3)** Philosophical theories of art production from Ancient Greece through the 19th century. Relationship of aesthetic experience to forms and to technical, psychological, and cultural values.

**Astronomy—See Geology and Astronomy**

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# Biology

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Dr. Waber, *Chairperson*

Dr. Dorchester, *Coordinator for Graduate Studies*

## PROFESSORS

Carmela L. Cinquina, Ph.D., *Rutgers—The State University*

Thomas DeMott, V.M.D., *University of Pennsylvania*

John E. C. Dorchester, Ph.D., *University of Toronto*

William R. Overlease, Ph.D., *Michigan State University*

Ronald F. Romig, Ph.D., *University of Delaware*

Richard I. Woodruff, Ph.D., *University of Pennsylvania*

## ASSOCIATE PROFESSORS

Robert W. Bernhardt, M.S., *Syracuse University*

William C. Brown, M.Ed., *Bloomsburg State College*

Georgann Cullen, M.A., *Kent State University*

Marianne K. Eleuterio, Ph.D., *University of Delaware*

Margaret Y. Martinez, M.A., *Columbia University*

Jack Waber, Ph.D., *University of Hawaii*

## ASSISTANT PROFESSORS

Frank Eliot Fish, Ph.D., *Michigan State University*

Harry G. Jones, M.S., *University of Pennsylvania*

Kathleen A. Tweeten, Ph.D., *Kansas State University*

Susan W. Webster, M.Ed., *West Chester State College*

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The Department of Biology offers two degree programs, one leading to the Master of Arts in Biology and the other to the Master of Education in Biology.

### Admission to the Programs

Applicants for either program must meet the general requirements for admission to degree study at West Chester and, in addition, submit scores for the Graduate Record Examination (verbal, quantitative, and advanced biology).

### Admission to the Master of Arts Program

Applicants must present a minimum of two semesters of general college chemistry, one semester of organic chemistry, one semester of mathematics, and at least 24 semester hours of biological science.

### Admission to the Master of Education Program

Applicants must present a minimum of two semesters of general college chemistry, one semester of organic chemistry, and at least 18 semester hours of biological science.

### Degree Candidacy

Students who intend to obtain a master's degree in biology must apply for degree candidacy by the time they have completed 15 hours of graduate credit in the Department of Biology. The application forms are obtained from the Office of Graduate Studies. In order to qualify for admission to candidacy the student must:

1. Have completed a minimum of 12 hours of graduate-level courses in biology with an average of B (3.0) or better.
2. Have submitted Graduate Record Examination scores for verbal, quantitative, and advanced tests.
3. Have performed satisfactorily on the departmental qualifying examination, which is administered in the fall and spring semesters. Students should notify the department graduate coordinator in writing of their intention to take the examination by October 1 of fall semester and February 1 of spring semester.
4. Have removed any conditions under which the student was originally admitted to graduate study.

## REQUIREMENTS FOR THE MASTER OF ARTS DEGREE IN BIOLOGY

### 30 Semester Hours

The candidate for the M.A. in biology must complete 30 semester hours of graduate work, of which at least 24 credits must be in biology. Six of these credit hours must be either in a thesis or a seminar program as outlined below. Six credit hours may be taken in allied sciences, approved by the department. In addition the candidate must perform successfully on an oral defense of thesis, or on the oral comprehensive examination.

#### A. Thesis (BIO 610)

The thesis should be based on independent laboratory or field observations and should constitute a contribution to existing knowledge. Although publication is not a requirement, the thesis should be in a format acceptable to any standard journal in the field. The candidate will be expected to defend the thesis during an oral examination.

#### B. Seminars in Biology

The candidate will participate in three seminars chosen from the following seminars: BIO 520—550—560—570. Seminars selected are subject to the approval of the faculty advisor or instructor. The content of the seminars will figure prominently in the final oral comprehensive examination.

## REQUIREMENTS FOR THE MASTER OF EDUCATION DEGREE IN BIOLOGY

### 34 Semester Hours

The candidate for the M.Ed. must complete 34 semester hours of graduate work, and of these, 12 hours must be taken in professional education courses in accordance with the requirements of the School of Education. (See pages 60-63.) In the area of biology, BIO 500 or equivalent is required from all M.Ed. candidates. Of the remaining 18-20 semester hours, all must be taken in biology or—under advisement—three of these hours may be taken in an allied science. The final comprehensive oral examination must be taken any time after the completion of 28 semester hours. Students may elect to be examined in the subject matter of their courses or may elect to present a seminar and be examined in the subject matter of the seminar and peripheral areas of knowledge.

Finally the student fulfills an elective requirement of from 0-4 semester hours in either professional education or academic course work.

## COURSE DESCRIPTIONS

## BIOLOGY

Symbol: BIO

**500 Methods and Materials in Biological Research (2)** Literature searching in biology; preparations of scientific reports; experimental design.

**503 Mammalian Physiology (3)** Fundamental physiological processes in mammals. PREREQ: college biology.

**505 Field Ecology and Natural History (3)** Identification of natural forms in local habitats. A course for endorsement of teachers in outdoor education. Not applicable to a master's degree in biology. Offered in summer session.

**520 Seminar in Cellular Biology (2)** Oral and written reports on topics drawn from such areas as cellular physiology, cytology, genetics, histology, and microbiology. PREREQ: permission of department. Offered in spring 1983.

**528 Animal Histology (3)** Structure and function of animal tissues and organs. PREREQ: college biology or zoology.

**530 Genetic Theory (3)** Structure and function of nucleic acids, genetic regulatory mechanisms, repair mechanism, mutagenesis, natural and engineered DNA recombination. Emphasis on current literature. PREREQ: college biology, genetics, and organic chemistry. Offered fall 1982.

**539 Human Heredity (3)** The innate qualities of human beings and the genetic basis for these qualities. PREREQ: general genetics or permission of instructor.

**543 Experimental Embryology (3)** A laboratory course introducing the student to techniques used in experimental embryology. PREREQ: embryology and organic chemistry or permission of instructor. Offered in spring of 1983.

**547 Growth and Development (3)** Discussion course dealing with current topics in the field of developmental biology. PREREQ: college biology or zoology. Genetics and embryology recommended. Offered in spring of 1982.

**550 Seminar in Organismic Biology (2)** Oral and written reports on topics drawn from such areas as development, morphology, physiology, systematics, and particular groups of organisms. PREREQ: permission of department. Offered in summer 1983.

**552 Comparative Parasitology (3)** Morphology and life cycles of the important parasites of man and animals; epidemiology, pathogenesis, and methods of treatment and control. Two hours lecture and three hours lab. PREREQ: college biology or zoology. Offered in spring 1983.

**554 Mycology (3)** An introductory course including a general study of the biology of fungi and a survey of the field of medical mycology. PREREQ: general biology plus 4 additional hrs. of biology.

**560 Seminar in Molecular Biology (2)** Oral and written reports on topics drawn from such areas as biochemistry, biophysics, and microbiology. PREREQ: permission of department. Offered summer 1982.

**561 Biochemistry I (3)** The chemistry and metabolism of biologically active compounds including carbohydrates, lipids, proteins and phosphorus. PREREQ: Chemistry, including at least one semester of organic. Offered precession 1982.

**562 Biochemistry II (3)** A laboratory course designed to be taken in conjunction with BIO 561. One three hour laboratory per week.

**564 Advanced Bacteriology (3)** A study of bacteriological structure and metabolism with emphasis on laboratory techniques and recent advances as described in current literature. PREREQ: Undergraduate bacteriology and chemistry through organic. Offered fall 1983.

**566 Plant Physiology and Biochemistry (3)** Plant-cell physiology including respiration, photosynthesis, enzyme catalysis, auxins, membrane phenomena. PREREQ: college botany, organic chemistry. Offered spring 1982.

**567 Endocrinology (3)** Anatomy and physiology of the ductless glands and the role of hormones in regulation and coordination of body processes. PREREQ: college biology and organic chemistry.

**570 Seminar in Populational Biology (2)** Oral and written reports on topics drawn from such areas as biogeography, ecology, evolution, and natural history. PREREQ: permission of department. Offered spring 1982.

**572 Applied Ecology (3)** Principles of ecology applied in the practice of resource management: forestry, wildlife management, park management, and agriculture. PREREQ: undergraduate course in ecology or permission of instructor.

**575 Limnology (3)** Physical, chemical, and geological features of the freshwater algae. PREREQ: college botany, general ecology.

**578 Freshwater Invertebrates (3)** Morphology, taxonomy, and bionomics of freshwater invertebrates. PREREQ: college biology.

**579 Human Ecology (3)** The urban ecosystem, approached through study of the major biotic and abiotic components of a local urban community. PREREQ: college biology, ecology, or permission of instructor. Offered in fall of 1982.

**581 Microtechnique (1-3)** Introduction to histological and histochemical techniques. PREREQ: animal histology or permission of instructor.

**584 Epidemiology (3)** A general study of the epidemiology of both infectious and non-infectious diseases, including industrial and environmentally related health problems. Methods of interviewing and data collecting are also included. PREREQ: BIO 214 or equivalent.

**585 Systematic Botany (3)** Principles of taxonomy and biosystematics. Selected plant families from tropical and temperate zones. Each student develops proficiency in the use of modern flora and knowledge of the common species of the spring flora of Chester County. PREREQ: college botany, or permission of instructor.

**587 Systematic Zoology (3)** Principles and procedures governing the classification of animals. PREREQ: college biology. Offered fall 1982.

**591 Independent Study in Biology I (1-3)** Individual research under the guidance of a faculty member. PREREQ: permission of instructor.

**592 Independent Study in Biology II (1-3)** Individual research under the guidance of a faculty member. PREREQ: permission of instructor.

**593 Independent Study in Biology III (1-3)** Individual research under the guidance of a faculty member. PREREQ: permission of instructor.

**600 Research Report (1-3)**

**609 Internship in Biological Science (8-16)** A full-time or half-time, one semester work study appointment with a commercial, industrial or governmental agency. Student will be supervised jointly by the professional scientist of the agency and a faculty member of the biology department. PREREQ: approval of the department.

**610 Thesis (6)**

*See also Marine Science*



# Chemistry

Dr. Mangravite, *Chairperson*

Dr. Bravo, Dr. Fenton and Dr. Moran, *Coordinators of Graduate Studies*

## PROFESSORS

Justo Bravo, Ph.D., *University of Kansas*

Marc L. Durand, Ph.D., *University of New Hampshire*

Robert F. Foery, Ph.D., *University of Iowa*

John Mangravite, Ph.D., *University of New Hampshire*

Robert W. Medeiros, Ph.D., *University of Delaware*

Francis J. Reynolds, Ph.D., *University of Pennsylvania*

Philip B. Rudnick, Ph.D., *Rutgers—The State University*

William Torop, Ed.D., *University of Pennsylvania*

## ASSOCIATE PROFESSORS

John Fenton, Ph.D., *University of Minnesota*

Ardis M. Williams, A.M., *Vassar College*

Philip Witonsky, Ph.D., *University of Minnesota*

## ASSISTANT PROFESSORS

Andrew Goudy, Ph.D., *University of Pittsburgh*

Virgil E. Magnuson, Ph.D., *University of New Hampshire*

Michael Moran, Ph.D., *University of Pennsylvania*

Helen G. Reid, Ph.D., *University of New Orleans*

## ADJUNCT PROFESSOR

Cliff Woodward, Ph.D., *Pennsylvania State University*

The Department of Chemistry offers a program leading to the Master of Science degree in Chemistry and a Master of Science degree in Clinical Chemistry. It also cooperates with the Departments of Earth Sciences and Physics in offering a program leading to the Master of Arts in Physical Science. See *Physical Science Program*.

## MASTER OF SCIENCE IN CHEMISTRY

### Admission Requirements

In addition to meeting the general requirements for a degree program at West Chester, applicants must present an undergraduate background including mathematics through calculus, one semester of analytical chemistry, and full-year courses in organic chemistry and physical chemistry.

### Degree Requirements

1. Before admission to degree candidacy, each student is required to take four out of five qualifying examinations in the major areas of chemistry (inorganic, analytical, physical, organic and biochemistry). The four areas are to be selected by the student. At least three of these examinations must be passed. If necessary, they may be retaken once. The student may be required to enroll in appropriate undergraduate courses for no credit in order to prepare for a re-examination. These examinations must be passed before admission to degree candidacy, i.e., prior to the attainment of 15 graduate credits.
2. At the discretion of the department chairperson, Graduate Record Examination scores may be required for purposes of evaluation and guidance.
3. A reading proficiency is required in any one of the following modern languages: German, French, or Russian. The reading test is administered by the Department of Foreign Languages. In place of the modern-language proficiency, a demonstrated proficiency in a computer language (FORTRAN, for example) may be substituted.\*
4. The candidate must perform successfully on an oral examination which is required for all options. The oral examination will include general chemistry knowledge but will place emphasis on the area represented by independent study or the research report. The members of the examination committee include the research supervisor, the departmental guidance coordinator, and two other professors.

## PROGRAM FOR THE MASTER OF SCIENCE IN CHEMISTRY

### 30, 33 or 36 Semester Hours

The M.S. in chemistry program consists of a required core of 15 semester hours and a chemistry elective area for which there are three options. All students must complete the core, composed of CHE 511—531—540 and any two of the topics courses (CHE 515—525—533—544—551—575).

#### Option A (30 semester hours)

This is the thesis program. Beyond the core the candidate takes Independent Study/Thesis (CHE 610) and 9 semester hours of electives.

#### Option B (33 semester hours)

Beyond the core this option requires Independent Study in (CHE 610) for 6 credits and 12 semester hours of electives.

#### Option C (36 semester hours)

Under this plan the student completes core requirements and an elective area of 21 semester hours which must include 3 credits in Independent Study (CHE 610).

Under all options the elective area is developed under advisement from chemistry offerings but may include 3 semester hours from another science area or from mathematical sciences.\* Until admitted to degree candidacy, students may not undertake Independent study.

## MASTER OF SCIENCE IN CLINICAL CHEMISTRY

### Admission Requirements

An applicant must meet the general requirements for a degree program at West Chester and must hold a bachelor's degree in chemistry, medical technology, or a closely related field.

Course prerequisites for admission include one semester each of analytical chemistry, biochemistry, physics, clinical chemistry, clinical chemistry laboratory and physical chemistry. Two semester of organic chemistry and mathematics through calculus are also required. Several of the above courses may be waived if the applicant has graduated from a four year medical technology program approved by the National Accrediting Agency in the Clinical Laboratory Sciences, (NACCLS). Students who do not meet program prerequisites may take required courses upon enrollment. Graduate Record Examination scores may be required prior to acceptance.

### Degree Requirement

1. Before admission to candidacy each student must pass a comprehensive examination covering basic concepts of organic and physical chemistry with emphasis in the areas of biochemistry, clinical chemistry, and analytical chemistry. This examination is usually administered after one-half of the student's coursework is completed. If necessary, this examination may be retaken once.
2. The candidate must perform successfully on an oral examination which is required in either program option. The oral examination will include general chemistry knowledge but will place emphasis on the area represented by independent study or the research report. The members of the examination committee include the research supervisor, the departmental graduate coordinator, and two other professors.

### Program for the Master of Science in Clinical Chemistry

The program consists of a required core of 21 semester hours. Additional credits needed for the degree (30 or 36) may be pursued under two options.

Core courses: Chemistry 548, 555, 579, 582, 583, 524, 575, 550 (CHE 550—Clinical Chemistry Internship, which may be waived for those students with sufficient clinical laboratory experience).

#### Option A

Core plus 15 semester hours of electives from chemistry, biology, physics, computer science or business administration (total hours equal 36). Students wishing to emphasize administration may take the 18 hour business core. This provides a Certificate in Business Administration and also serves as a minor toward the MS in Clinical Chemistry.

#### Option B

Core plus 3 semester hours of electives from chemistry, biology, physics, computer science or business administration plus research/thesis (6 hours) CHE 610.

\*A computer science course taken to satisfy the foreign language requirements will not be counted as an elective toward the degree.

## COURSE DESCRIPTIONS

### CHEMISTRY

Symbol: CHE unless otherwise shown CRL  
Laboratory

**500 Fundamentals of Radioisotope Techniques (3)** Biological, chemical, environmental, and physical effects of nuclear radiation. Radiation detection, instrumentation, and radiotracer methodology. PREREQ: 1 year of college chemistry and 1 year of college physics.

**503 Chemistry of the Environment (3)** The chemistry of the atmosphere, hydrosphere, and biosphere. Man's impact on these areas. Not for M.S. in Chemistry.

**505 Fundamental Topics in Chemistry (2-6)** Basic level elective courses in chemistry for professional growth. Not for M.S. in Chemistry. May be repeated. PREREQ: General Chemistry.

**508 Industrial Pollution (3)** Applications of elementary chemical engineering to the industrial complexities of the environmental processes. Emphasis on unit operations and unit processes applicable to pollution control and abatement.

**511 Advanced Inorganic Chemistry I (3)** Structure and properties of the elements and their compounds from a theoretical point of view; horizontal, vertical, and diagonal relationships in the periodic table.

**515 Topics in Inorganic Chemistry (3)** Topics of current interest in inorganic chemistry. Topic to be announced prior to registration.

**516 Inorganic Preparations (3)** A laboratory course in advanced techniques for the synthesis of inorganic compounds.

**517 History of Chemistry (1)** The history of chemistry and its predecessors from earliest time to present day.

**518 Literature of Chemistry (1)** Instruction in the use of a modern chemical library, reference and data acquisition, synthetic procedures and computer data bases. PREREQ: CHE 231

**519 Ethics and Human Values in Science (1)** A one semester course for science majors to acquaint students with ethical problems in their professional careers.

**521 Advanced Analytical Chemistry (3)** Analytical methods and techniques; theory and application of chemical instrumentation.

**525 Topics in Analytical Chemistry (3)** In-depth examination of current topics in instrumental or wet chemical analysis. Special emphasis on state-of-the-art development and applications.

**531 Organic Reaction Mechanisms (3)** Theoretical treatment of selected organic reac-

tions. Emphasis on bonding theory, structural relationship, equilibria, and free-energy relationships.

**532 Synthetic Organic Chemistry (3)** Topics of current interest in organic chemistry. Topic announced prior to registration.

**533 Topics in Organic Chemistry (3)** Topics of current interest in organic chemistry. Topic announced prior to registration.

**535 Qualitative Organic Analysis (5)** Identification of pure organic compounds and mixtures of organic compounds using classical and modern instrumental techniques. Laboratory included.

**536 Polymer Chemistry (3)** Polymerization kinetics, rheology of polymer melts, crystallization parameters, and monomer reactivity in copolymerization.

**540 Chemical Thermodynamics (3)** Laws and functions of thermodynamics and their applications: introduction to statistical thermodynamics.

**543 Quantum Chemistry (3)** Basic quantum chemistry, including the hydrogen atom problem, chemical bonding, spectroscopic concepts, and group theory.

**544 Topics in Physical Chemistry (3)** Topics of current interest in physical chemistry. Topic announced prior to registration.

**548 Clinical Biochemistry (3)** A one semester course on the biochemical basis of disease. Case histories are discussed with emphasis on the clinical interpretation of laboratory data. PREREQ: CHE 581.

**550 Internship in Chemistry (3-6)** A full or part-time work study appointment in a hospital, commercial, governmental or industrial laboratory supervised jointly by an on-site supervisor and chemistry department faculty member. PREREQ: permission of the department internship committee.

**551 Chemistry of Coordination Compounds (3)** Principles of complex formation; application of the crystal theory, various complexing agents, and chemical implications of coordinated compounds. PREREQ: CHE 511.

**555 Quantitative Clinical Methods (1)** A source on the mathematical aspects of clinical laboratory science. Statistics and laboratory uses for computers are stressed. PREREQ: CHE 581.

**563 Electrochemistry (3)** Principles of electrochemical systems and galvanic cells; electrolytic applications in instrumentation and research. PREREQ: CHE 511.

**575 Topics in Biochemistry (3)** Topics of current interest in biochemistry. Topic announced prior to registration.

**579 Chemical Toxicology (4)** A one-semester course in the basic principles of toxicological analysis. Special emphasis will be placed on documentation, sampling, and verification of laboratory materials and results. The environmental and physiological aspects of chemical toxicity will be explored.

**581 Clinical Chemistry (3)** Analysis of biological fluids. Clinical significance of enzyme, electrolyte, protein, and carbohydrate analysis. Requires permission of instructor or undergraduate preparation in organic chemistry and quantitative analysis. PREREQ: OR CONCURRENT: CHE 571 (Fundamentals of Biochemistry).

**CRL 581 Clinical Chemistry Laboratory (2)** Lab for CHE 581. Practical experience in analysis of biological fluids for diagnostic parameters. Nature of biological sampling, sample preservation, methodology, statistics, quality control. PREREQ: CRL 231 and CRL 321 or equivalents.

**582 Advanced Clinical Chemistry (3)** A one semester course with emphasis on recent advances in testing modalities, instrumentation and methodologies in clinical chemistry. PREREQ: CHE 571, 581.

**583 Clinical Chemistry Seminar (2)** A course emphasizing the recent literature in clinical chemistry. Student lecture presentations and

round table discussions are used. PREREQ: CHE 581.

**585 Theory and Practice of Spectrophotometry (4)** Lecture and laboratory course with emphasis on research uses of spectrophotometry. Theoretical background and laboratory techniques for understanding and carrying out advanced spectroscopic studies.

**591 Seminar (2)** Topics of current interest in chemistry.

**610 Advanced Independent Study/Thesis Research (3-6)**

**SCC 570 Science and Human Values (3)** Not for M.S. in Chemistry.

Any of the following dual level courses (but not more than 6 semester hours of credit) may be taken for graduate credit toward the degree:

**504 Foundations of Nutrition (3)**  
Not for M.S. See CHE 404\*

**524 Analytical Chemistry II (3)** See CHE 424\*

**CRL 524 Analytical Chemistry II Laboratory (2)** See CRL 424\*

**571 Fundamentals of Biochemistry (3)** See CHE 471\*

**CRL 571 Experimental Biochemistry (2)** See CRL 471\*

\*See undergraduate catalog for course descriptions.



# Childhood Studies and Reading



Dr. Ziegler, *Chairperson*

Prof. Grafton, Dr. Habecker, Dr. Hall, *Assistant Chairpersons*

## PROFESSORS

Joseph C. Hall, Ed.D., *Temple University*

E. Riley Holman, Ed.D., *Brigham Young University*

Mary A. Keetz, Ph.D., *University of Pennsylvania*

Charlotte E. King, Ed.D., *Temple University*

George W. Maxim, Ph.D., *Pennsylvania State University*

Erminio J. Peta, Ed.D., *Lehigh University*

Carlos R. Ziegler, Ed.D., *Temple University*

### ASSOCIATE PROFESSORS

Nona E. Chern, Ed.D., *Temple University*  
K. Eleanor Christensen, Ph.D., *University of Delaware*  
Patricia E. Grasty, Ed.D., *Temple University*  
James E. Habecker, Ed.D., *University of Pennsylvania*  
Robert W. Herres, M.A., *Syracuse University*  
Ruth B. Petkofsky, Ed.D., *Temple University*  
Carol A. Radich, Ph.D., *University of Maryland*

### ASSISTANT PROFESSORS

Edward H. Gibson, Ed.D., *Nova University*  
Bernice J. Salup, Ed.D., *Temple University*  
Robert J. Szabo, Ed.D., *Lehigh University*

### ELEMENTARY EDUCATION:

The department offers the Master of Education degree in elementary education, as well as non-degree programs for teachers working for professional growth and/or credit certification.

#### Miller Analogies Test

The Miller Analogies Test is required. Scores must be on file within the student's first semester.

#### Department Pre-Candidacy Requirements

Within the pre-candidacy period (the first 12-15 semester hours) the applicant must:

1. Complete EDF 501 and two EDE courses.
2. Maintain an average of 2.75 overall and 3.00 in elementary education.

Please refer also to "Degree Candidacy and Degree Requirements" under Academic Information.

Students who fail to qualify as degree candidates are classified as non-degree students. (See "Reapplication for Degree Candidacy" under Academic Information.)

#### The Comprehensive Examination

In order to become eligible for the examination the student must:

1. Be a degree candidate.
2. Complete at least 28 semester hours including all required courses by the end of the semester preceding the examination.
3. Maintain an average of 2.75 overall and 3.00 in elementary education.

The examination is given on the first Saturday in February and the second Saturday in July, unless otherwise announced by the department.

Applications for admission to the comprehensive examination are available from the department and must be filed by December 1 for the February examination and May 1 for the July examination. A candidate who fails the comprehensive examination is permitted to take one re-examination within a two-year period. Upon a second failure, the candidate's future status will be determined by the departmental graduate committee following a comprehensive review of his/her graduate record.

#### Requirements for The Degree

1. Satisfactory completion of the curriculum as given below. Both the selection and the sequence of courses should be determined in consultation with the appointed advisor.

2. An overall grade point average of at least 2.75 and a grade point average of at least 3.00 in elementary education. NOTE: All courses specific to elementary education are included in computing the grade point average in elementary education. Examples of such courses are LIT 550 and MAT 555.
3. Satisfactory performance on the comprehensive examination.
4. Evidence of certification in elementary education.

## MASTER OF EDUCATION IN ELEMENTARY EDUCATION

This may be either a non-thesis program requiring 34 semester hours or a thesis program requiring 30 semester hours.

In either option the candidate must meet a professional education requirement including EDF 501, EDF 510, and EDP 550. Also required in either option is an elementary education area consisting of EDE 548, 549, 553, and an elective in elementary education.

Within the first session of enrollment the student confers with the assigned advisor to determine an appropriate and desirable area of concentration. The remainder of the program will be developed within the selected concentration. The choice of concentrations may be made from (A) areas offered by the Department of Childhood Studies and Reading or (B) areas offered by other departments. These are:

### (A) Elementary Education Concentration Areas

Creative Teaching-Learning	Language Arts
Early Childhood Education	Middle School
Elementary Education (General)	Open Education
Gifted and Talented	Social Studies
Human Development	

### (B) Concentration Areas in Other Departments

Bilingual Education	Reading
Children's Literature	Science
Mathematics	Special Education

## MASTER OF EDUCATION IN ELEMENTARY EDUCATION

Non-Thesis Program (34 s.h.)

### I. PROFESSIONAL EDUCATION

EdF 501	Methods and Materials of Research and Study for Elementary Education Majors . . . . .	3	
EdF 510	Educational Foundation . . . . .	3	
EDP 550	Advanced Educational Psychology . . . . .	3	9 s.h.

### II. ELEMENTARY EDUCATION

EdE 548	Curriculum Theory and Trends of Elementary Education . . . . .	3	
EdE 549	Theory and Trends in the Language Arts . . . .	3	
EdE 553	Child Development and Behavior II . . . . .	3	
	Elective in Reading and/or Elementary Education . . . . .	3	12 s.h.

### III. AREA OF CONCENTRATION

The 21 credit hours above are required of all degree candidates. 13 s.h.

The remaining 13 credits are to be concentrated in one of the following areas, to be selected under advisement during the first session of enrollment:

Courses offered within the Department. Advisement by assigned adviser.	Courses offered in other departments. Advisement for area of concentration by selected faculty in respective department.
Creative Teaching-Learning Early Childhood Education Elementary Education (general) Gifted & Talented Human Development Language Arts Reading	Social Studies Bilingual Education Children's Literature Mathematics Science Special Education

Thesis Program (30 s.h.)

Students who wish to pursue the thesis program must consult with the department chairman or his designee not later than the second session of enrollment.

Reading

Through its graduate reading program, the School of Education offers: (1) the Master of Education degree with a major in reading and (2) Reading Specialist Certification. Students who complete either program are recommended for Pennsylvania Certification as Reading Specialists.

These programs prepare candidates to serve in special reading positions and as classroom teachers of reading in elementary or secondary schools.

ADMISSION TO THE DEGREE PROGRAM

1. The student must possess an Instructional I Certificate.
2. The Graduate Record Examination Aptitude Test and/or the Miller Analogies Test is required. Scores must be on file within the student's first semester session.
3. Courses required within the pre-candidacy period are: EDR 510, 514 or 515, 516, and EDF 500; and one additional course from the prescribed program.
4. An overall average of 2.75 and a minimum of 3.00 in reading courses must be maintained during the pre-candidacy period.

DEGREE PROGRAM REQUIREMENTS

In addition to meeting degree requirements of the college the candidate must:

1. Successfully complete the reading curriculum and any additional courses which may be required by the reading faculty.
2. Achieve an overall average of at least 2.75 and a minimum of 3.00 in reading courses.
3. Perform satisfactorily on the comprehensive examination in reading. Responsibility for meeting all requirements at the proper time rests with the student.

THE COMPREHENSIVE EXAMINATION

The student is eligible for comprehensive examination upon completion of all prescribed work and the recommendation of the advisor. The examination is given the first Saturday in November, the first Saturday in March and the second Saturday in July. Application for the examination must be made in writing to the department chairperson by September 1 for the November examination, January 1 for the March examination and May 1 for the July examination.

Candidates who fail the comprehensive examination are permitted one reexamination within a two-year period. Upon a second failure, candidates are dropped from the degree program.

MASTER OF EDUCATION IN READING

36 semester hours

Professional Education Requirements: EDF 500 and EDF 510

Area of Concentration Requirements:	6 s.h.
EDR 510, 514 or 515, 516, 517, 521, 522, 541	21 s.h.
Area of Concentration Electives:	
Selected, under advisement, from EDR 523, 525, 526, 540, 542, 590	3 s.h.
*Related Study Requirements: At least one course from Group A and one from Group B must be selected, under advisement	6 s.h.
GROUP A (Language Arts); EDE 522, 543, 548, 549, ENG 592, 593	
GROUP B (Related Areas): EDA 571, EDC 545, EDE 551, EDE 553, EDE 554, EDE 555	

READING SPECIALIST CERTIFICATION

30 semester hours

Requirements for the Certification Program:

1. The student must possess an Instructional I Certificate.
2. Courses required within the first 15 hours are EDR 510, 514 or 515, 516, and 517.
3. An overall average of 2.75 and a minimum of 2.88 in reading courses must be maintained.
4. In order to obtain the certificate the student must successfully complete the program shown above under "Master of Education in Reading" except that the student is not required to take the two courses in professional education.
5. The student must perform successfully on the competency examination.

COURSE DESCRIPTIONS  
EARLY CHILDHOOD & ELEMENTARY  
EDUCATION  
Symbol: EDE

- 502 Introduction to Early Childhood Education (3) A basic course in early childhood education. Emphasis is upon the historical and theoretical bases influencing education of young children.
- 503 Contemporary Influences in Early Childhood Education (3) Current factors that affect the educational needs of young children and classroom practices reflecting these influences.
- 504 Early Childhood Programs (3) Model pro-

- grams in early childhood education, focusing upon curriculum design and implementation in the preschool and primary years.
- 505 Seminar in Early Childhood Education (3) Selected problems in early childhood education. PREREQ: permission of instructor.
- 522 Teaching the Communication Skills (3) Strategies for teaching the language arts. Methods, materials, and resources for organizing creative programs in school settings.
- 530 Social Studies in Elementary Education (3) Interdisciplinary and multi-cultural strategies for developing concepts, skills, and values in the social studies program.

\*Courses other than those listed may be substituted for this area provided the student first obtains his/her advisor's approval for the course. If the student fails to obtain the advisor's approval prior to registration for the course, then it may not be used to meet any requirements in this area.

**532 Curriculum and Research in Social Studies (3)** Recent research in social studies with emphasis on the theoretical bases for making curriculum decisions. PREREQ: permission of instructor.

**533 Seminar in Social Studies Education (3)** Selected problems in social studies education. PREREQ: permission of instructor.

**543 Creative Expression in the Elementary School (3)** Theories and techniques to promote creative thinking and enhance children's creative potential in all areas of the school curriculum.

**544 Open Education in the Elementary School (3)** Emphasis is placed on how learning occurs in open education. Planning environments and programs for children.

**548 Curriculum Theory and Trends in Elementary Education (3)** Theoretical frameworks of elementary school curricula; curriculum development and change. To be taken after 15 hours of work.

**549 Theory and Trends in the Language Arts (3)** Analysis and evaluation of language arts programs including reading in the modern elementary school. PREREQ: EDE 548.

**551 Child Development and Behavior I (3)** Social, intellectual, emotional, physical, and moral aspects of child development and behavior. Emphasis on personal development of the teacher as a prerequisite to understanding children in the elementary school.

**552 The Middle School Child (3)** Development, behavior, and specific needs during late childhood and early adolescence (10-15 yrs.); applies to working with children in the middle school. PREREQ: recent course in child/human development.

**553 Child Development and Behavior II (3)** Review of principles of growth and development. Theories of personality development; clues to identifying children with problems; therapies applicable to elementary school children. Case study required. PREREQ: a recent course in child development.

**554 The Self Concept (3)** Self concept theory and research; implications for development, learning, and behavior; specific application to school settings. PREREQ: recent course in human development or the equivalent.

**555 Self Development and Interpersonal Skills (3)** Self development, interpersonal, and group communication skills. Focus on helping relationships in educational settings. PREREQ: recent course in human development or the equivalent.

**556 Seminar in Human Development (3)** Critical issues in human development. PREREQ: permission of instructor.

**560 Meeting Individual Needs of Children (3)** Discovering each child's needs; providing for individualized learning; identifying problems and their solutions. PREREQ: recent course work in elementary education and child development.

**561 Guidance in the Elementary School (3)** Developmental guidance—philosophy, programs, personnel. Guidance role and responsibilities of the teacher in the classroom. PREREQ: recent course work in elementary education and child development.

**565 Effective Classroom Management (3)** Dynamics of interpersonal relations in planning and facilitating classroom instruction.

**570 Supervision in the Elementary School (3)** Concepts and practices in supervision of teachers, student teachers, and aides. PREREQ: course work in elementary education and child development.

**571-589 Workshops in Elementary Education (1-6)** Additional course numbers will be assigned as new areas of study are announced. Credits vary. The series presently includes:

580 Workshop in Elementary Education

581 Workshop in Open Education

582 Workshop in Social Studies

583 Workshop in Creativity

584 Workshop in Early Childhood Education

585 Workshop in Language Arts

587 Workshop in Affective Education

588 Workshop in Gifted and Talented

589 Workshop in Teaching Skills to Combat Sexism

**590 Independent Study (1-3)** Enrollment by permission only; number of credits determined by instructor.

**600 Research Report (1-2)**

**610 Thesis (4-6)**

**695 Seminar in Elementary Education (3)** Selected topics in elementary education. To be taken during semester preceding the taking of the comprehensive examination in elementary education.

Symbol: EDG

**542 Creative Thinking: Gifted and Talented (3)** A study of the basic theoretical approaches for encouraging the creative potential of gifted and talented learners.

**546 Gifted and Talented: Teaching Strategies and Materials (3)** Program models, resources, and materials designed to meet the needs of gifted and talented children and youth.

## COURSE DESCRIPTIONS

### READING

Symbol: EDR

#### 510 Foundations of Reading Instruction K-12

(3) Psychology and pedagogy of reading instruction. The nature of the reading process; the nature of the learner; skill development; instructional strategies. Offered in fall, spring and summer.

#### 514 Reading in the Content Areas: Elementary

(3) The specialized reading skills, reading problems, teaching techniques, and reading activities in content subjects at the elementary level. PREREQ: 510 or permission of instructor. Offered in fall.

#### 515 Reading in the Content Areas: Secondary

(3) The specialized reading skills, reading problems, teaching techniques, and reading activities in content subjects at the secondary level. PREREQ: 510 or permission of instructor. Offered in spring.

516 Reading Disabilities (3) Concerned with the nature of reading disability and diagnosis and remediation of reading problems. PREREQ: 510. Offered in fall and summer.

517 Current Practices in Teaching Developmental and Corrective Reading (3) Concerned with developmental and corrective reading instruction. Attention is given to diagnostic procedures and resulting appropriate instruction. PREREQ: 516 or permission of instructor. Offered in fall and spring.

#### 521 Reading Clinic Practicum and Seminar I (3)

A laboratory course. Diagnosis of reading difficulties of elementary and secondary students with reading problems. Major attention given to diagnosing corrective cases and writing case reports. PREREQ: 514 or 514; 516. Offered in fall and summer.

#### 522 Reading Clinic Practicum and Seminar II

(3) Continuation of 521. Opportunities to develop specific techniques for correcting various types of reading disability cases. PREREQ: 521. Offered in spring and summer.

523 Reading as a Language Process (3) Basic concepts from areas of phonology, morphology, syntax, semantics, sociolinguistics, dialectology,

and psychology will be related to the teaching of reading in grades K-12.

525 Reading for the Disadvantaged (3) Historical, cultural, and educational contexts of current issues as they relate to language competency programs, evaluation, and reading instruction for disadvantaged learners.

526 Reading Readiness and Early Childhood Experiences (3) Concerned with children's readiness for initial reading instruction. Emphasis on instructional recommendations and implementations for a range of abilities. PREREQ: EDR 510 or permission of instructor.

540 Seminar in Reading (3) Critical examination of trends, opinions, and current research in the teaching of reading. PREREQ: 516 or permission of instructor.

541 Organization and Operation of Reading Programs: K-12 (3) Practical application of the reading specialist's role in organizing and operating K-12 reading programs. Emphasis on the use of the total school community in meeting individual reading needs. PREREQ: 522 or permission of instructor. Offered in spring and summer.

542 Seminar in Reading Research (3) A seminar in the basic techniques and sources of research in reading. Exposure to significant research in the field. PREREQ: EDF 501 or permission of instructor.

544 Reading for the Gifted/Talented K-12 (3) Reading materials, programs, evaluations, and teaching strategies for the gifted/talented are examined and discussed. Students develop and utilize materials in a classroom situation.

545 Bibliotherapy (3) An introductory course dealing with the basic concepts of bibliotherapy and its use as an adjunct to other therapeutic measures. Directed reading procedures for the solution of various problems are discussed. Students develop and utilize materials and a selective annotated bibliography. PREREQ: permission of the instructor.

590 Independent Study and Research (1-6) Individual investigation and exploration of related reading research. Topic must be approved by the supervising instructor prior to registration.

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# Communicative Disorders

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Dr. Weiss, *Chairperson*

Dr. Aungst, *Coordinator of Graduate Studies*

## ASSOCIATE PROFESSORS

Lester F. Aungst, Ph.D., *Pennsylvania State University*

Susan Maxwell, M.A., *Ohio University*

Frank E. Peterson, M.A., *Columbia University*

Michael S. Weiss, Ph.D., *Purdue University*

## ASSISTANT PROFESSORS

Leila B. Alson, M.A., *Ohio University*

John L. Eberhart, M.A., *Syracuse University*

Joseph A. Stigora, Ph.D., *Bowling Green University*

## INSTRUCTOR

Elena F. Stuart, M.S., *Purdue University*

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The Department of Communicative Disorders offers the Master of Arts degree in Speech Pathology. The student may choose a thesis or nonthesis program. Either program is designed to strengthen the knowledge and skill of the practicing speech clinician, to provide the foundation for further graduate study, and to afford opportunity to complete requirements toward professional certification by the American Speech-Language-Hearing Association. Attainment of the master's degree does not necessarily guarantee recommendation for certification.

## MASTER OF ARTS IN SPEECH PATHOLOGY

39 Semester Hours

### Admission to the Program

In addition to meeting the general requirements for admission to a degree program at West Chester, applicants must:

1. Present an undergraduate background of at least 24 semester hours in the following areas of study: speech and language development, phonetics, introduction to speech disorders, introduction to audiology, basic speech and hearing science, and clinical experience.
2. Present undergraduate transcripts showing at least a 3.00 average in the last 60 hours of study.
3. Demonstrate a reasonable degree of speech and language proficiency.
4. Submit Miller Analogies Test scores for purposes of evaluation and guidance.
5. Submit a log of undergraduate clinical practicum.
6. Submit 3 letters of recommendation.
7. Submit a 250-word essay describing future goals and aspirations.

### Admission to Degree Candidacy

1. The applicant may apply for degree candidacy after having completed SPP 501 and two additional departmental graduate courses; application must be made before the student has completed 15 semester hours of graduate work required for the degree.
2. During the pre-candidacy period, the applicant must maintain an overall average of 3.00.
3. The applicant must have demonstrated satisfactory performance in clinical practicum.

### Requirement for the Degree

1. The candidate must meet the general college requirements for the master's degree, including completion of all required courses with an overall average of 3.00.
2. The candidate must perform satisfactorily on a comprehensive written and oral examination, which may not be taken before the student's final semester of course work. Those who fail the examination may repeat it once. The interval between the two examinations may not exceed one year.
3. The candidate must complete satisfactorily SPP 501, 502, 508 and 3 semester hours of graduate clinical practicum (SPP 551)\*, and 27 additional semester hours, chosen with advisement.
4. The student must be in continuous enrollment.

### COURSE DESCRIPTIONS COMMUNICATIVE DISORDERS

Symbol: SPP

**500 Survey of Speech Disorders (3)** Description, etiology, and management of communication disorders. Introduction to the field of speech pathology and its interrelationships with other professions. Open to non-majors with no previous coursework in speech pathology. Not open to students with credit for SPP 101 or equivalent.

**501 Foundations of Research in Speech Pathology (3)** Introduction to the scientific process and to the interpretation and application of research in the speech sciences. A research project outline required.

**502 Experimental Phonetics (3)** Study of acoustic and physiological mechanisms underlying speech production and perception. Current theoretical models are reviewed and analytical instrumentation demonstrated. Students are provided with laboratory experiences to complement lecture materials.

**508 Neurology of the Speech and Hearing Mechanism (3)** This course provides the student with information concerning the neuroanatomical and neurophysiological mechanisms underlying the speech and hearing process.

**523 Voice Disorders (3)** Examination of classification, etiology, diagnosis, and therapy for functional, organic, and psychological voice disorders.

**524 Fluency Disorders (3)** Consideration of the nature, causes, diagnosis, and treatment of stuttering and related disorders of speech flow. Critical review of pertinent research. PREREQ: Permission of department.

**526 Articulation Disorders (3)** Study of disorders of articulation.

**535 Language Disorders of Children (3)** Linguistic and neurological aspects of behavior relative to disorders of language in children. Review of etiology, assessment, and treatment. PREREQ: SPP 107 or equivalent.

**536 Aphasia (3)** Study of the behaviors associated with language disorders in adults. Emphasis on etiologies, symptoms, assessment and rehabilitative procedures.

**543 Therapy for the Hearing Impaired (3)** Evaluative and therapeutic materials and methods applicable to the improvement of communication in hard-of-hearing individuals. PREREQ: SPP 346 or equivalent.

**546 Aural Rehabilitation (3)** Medical, prosthetic, and educational approaches to aural rehabilitation for children and adults. Not open to students with credit for SPP 346 or equivalent. PREREQ: SPP 343 or equivalent.

**547 Audiometry (3)** Lecture/laboratory course in the measurement of hearing. Not open to students with credit for SPP 347 or equivalent. PREREQ: SPP 343 or equivalent.

**549 Advanced Audiology (3)** A lecture/laboratory course which explores clinical techniques for the measurement of hearing. Basic measures are reviewed. Advanced differential techniques are studied with some opportunity to develop competence in administering these tests during lab periods. PREREQ: SPP 347 or equivalent.

**550 Advanced Diagnostic and Therapeutic Methods in Speech Pathology (3)** Current and advanced evaluative methods and materials applicable to the diagnosis and remediation of communication disorders.

**551 Graduate Clinical Practicum (3)** Supervised practice in the Speech and Hearing Clinic and/or in affiliated clinics. Designed to increase diagnostic and therapeutic skills with children

\*Although the student may elect more than 3 semester hours of clinical practicum for personal objectives, no more than 3 may be counted toward the degree.

and adults who have communication problems. May be repeated. PREREQ: SPP 351 or equivalent and permission of department.

**560 Seminar in Speech Pathology (3)** Selected theoretical and clinical areas of speech pathology and related disciplines. Topics vary each semester according to research developments and student needs. PREREQ: permission of instructor.

**561 Seminar in Audiology (3)** Selected areas in audiology and related disciplines. Topics vary each semester according to developments in research and student needs. PREREQ: permission of instructor.

**569 Equipment Workshop (3)** Evaluation, selection, use, and maintenance of electronic aids for the speech and hearing clinician. Demonstration of equipment for diagnosis, therapy and classroom use. Students will have ample opportunity to work with tape recorders, auditory trainers and special calibration techniques.

**573 Administration and Supervision of Speech and Hearing Programs (3)** Nature and scope of supervisory positions in speech and hearing programs. Emphasis on administrative problems.

**580 Orofacial Anomalies (3)** Comprehensive consideration of the nature, causes, diagnosis, and treatment of communication disorders associated with orofacial anomalies, particularly cleft lip and cleft palate. PREREQ: SPP 203 or equivalent, or permission of department.

**589 Neuromuscular Disorders (3)** Nature, causes, diagnosis and treatment of communication disorders associated with neuromuscular dysfunction, with particular attention to the cerebral palsies.

**590 Independent Study (1-3)** Individualized research projects, reports, and/or readings in speech pathology or audiology under faculty supervision. PREREQ: approval of department chairperson.

**610 Thesis (1-6)**

## Computer Science—See Mathematical Sciences

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# Counselor, Secondary, and Professional Education

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Dr. Deischer, *Chairperson*

Dr. Kahn, *Assistant Chairperson, Graduate Studies*

Dr. Thomas, *Assistant Chairperson*

## PROFESSORS

Walter E. Buechele, Jr., Ed.D., *Temple University*

Mary E. Cleary, Ed.D., *George Washington University*

Harry H. Deischer, Ed.D., *University of Pennsylvania*

Charles W. Good, Ed.D., *Temple University*

George M. Thomas, Ed.D., *Temple University*

Shirley A. Walters, Ed.D., *Temple University*

Thomas B. Williams, Ed.D., *Temple University*

## ASSOCIATE PROFESSORS

Richard C. Gleockler, M.Ed., *Bucknell University*

Ronald L. Gottshall, M.A., *Michigan State University*

Saul H. Greenberg, J.D., *University of Baltimore*

John Holingjak, Jr., Ed.M., *Temple University*

Yi-Ming Hsu, Ed.D., *University of Georgia*

Wallace J. Kahn, Ph.D., *University of Maryland*

F. William Leeds, M.A., *University of Pennsylvania*

Reynold D. Paganelli, C.A.S., *Johns Hopkins University*

William J. Rahn, M.Ed., *Temple University*

Jay Silverman, Ph.D., *New York University*

Julian M. Swiren, Ed.D., *Pennsylvania State University*

## ASSISTANT PROFESSOR

Jack P. Edwards, M.Ed., *West Chester State College*

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The Department of Counselor, Secondary and Professional Education offers a variety of graduate programs leading to professional certification as well as the Master of Education and Master of Science degrees.

## COUNSELOR EDUCATION

The Counselor Education Program offers two degree programs. The first is a degree-certification program which leads to the Master of Education and the Educational Specialist I Certificate for elementary school counselors or secondary school counselors.

The second leads to the Master of Science degree for persons interested in counseling in post-secondary and higher education settings.

A handbook describing both programs in greater detail is available from the department's graduate office.

## ADMISSION TO THE PROGRAM

Applicants must possess a baccalaureate degree from an approved institution and present an overall undergraduate average of at least 2.5. They must also have achieved an average of 2.75 in at least twelve credits in certain areas of education, psychology, and sociology.

Additional criteria are satisfactory scores on the Miller Analogies Test or Graduate Record Examination (taken within the past 10 years) and evidence of personal and professional qualities indicating a potential for success in the counselor education programs.

**DEGREE REQUIREMENTS**

Upon meeting admission criteria, students are accepted for Competency Area I, and during this phase, are evaluated for academic achievement and interpersonal relationship skills. Upon successful completion of Competency Area I and departmental recommendations, students become degree candidates for the remainder of the program, which encompasses advanced work and field experiences. Upon completion of the prescribed work and advisor's recommendation, candidates must undertake a comprehensive examination. The degree being pursued will be granted only when the student has met the standards of the Department of Counselor, Secondary, and Professional Education.

**Certification**

In order to obtain the Educational Specialist I Certificate, the student must successfully complete the required practicum in an approved secondary or elementary school. This course provides opportunity for the student to work closely with a professional counselor in a public school under supervision of the faculty of West Chester State College. The certificate is issued on the basis of the program approval status of the counselor education program at the college as granted by the Pennsylvania Department of Education.

**MASTER EDUCATION: ELEMENTARY SCHOOL COUNSELING OPTION**

**36-42 Semester Hours**

Competency Area I: EDC 503, 567, 571, EDF 502	12 s.h.
Competency Area II: EDC 520, 540, 556, 572, 574	15 s.h.
Competency Area III: EDC 585, 590, EDF 510 or EDF 589	9 s.h.
Complementary coursework (EDA 500 required)	3-9 s.h.

**MASTER OF EDUCATION: SECONDARY SCHOOL COUNSELING OPTION**

**36-42 Semester Hours**

Competency Area I: EDC 503, 567, 571, EDF 502	12 s.h.
Competency Area II: EDC 520, 540, 556, 573, 575	15 s.h.
Competency Area III: EDC 585, 591, EDF 510 or EDF 589	9 s.h.
Complementary coursework	3-9 s.h.

**MASTER OF SCIENCE: HIGHER EDUCATION COUNSELING OPTION**

**36-42 Semester Hours**

Competency Area I: EDF 502, EDC 530, 531, 540, 567	15 s.h.
Competency Area II: EDC 556, 578, 592, 593	12 s.h.
Competency Area III: PSY 505, 506, 509, 512, 529, 550 (any two courses selected under advisement)	6 s.h.
Complementary coursework	3-9 s.h.

## COURSE DESCRIPTIONS COUNSELOR EDUCATION

Symbol: EDC

**503 Introduction to Guidance Services (3)** Historical development, philosophical foundations and determinants of guidance services in contemporary elementary and secondary education. Special services, testing, group and individual counseling other elements. Guidance as a profession; ethics; current developments and trends.

**520 Counseling for Human Differences (3)** Examination of differences manifested by individuals. The purpose of the examination is to prepare counselors for designing counseling strategies appropriate to the uniqueness of the client.

**530 The College Student (3)** In the face of increasing demands for relevance, flexibility, and vitality in the college community, workers in higher education need to know contemporary students. Hence this exploration of several aspects of the life and work of today's young adults.

**531 Introduction to Counseling in Higher Education (3)** Introduction to the type of counseling services which are provided in higher education and to the settings in which these take place.

**540 Assessment Methods in Guidance (3)** Emphasis is on the test and non-test assessment of intelligence, achievement, special abilities, aptitudes including concepts such as reliability, validity, standardization. Elementary and secondary applications stressed.

**545 Psychometric Interpretation (3)** A survey course involving the use of psychometrics as the vehicle for the diagnosis of learning problems. Test interpretation and reporting are emphasized.

**556 Career Development Theories and Practices (3)** Theories and techniques relating to career development in children, adolescents, and adults. Career development programming within the context of a systems approach is stressed.

**567 Group Dynamics (3)** This course in group process focuses on the identification of the implicit and explicit role functions of the group member and the group leader. The recognition and awareness of one's behavior with multiple feedback sources is of primary concern. To initiate, develop, and master relationships in a group setting will be the major objective of this experience.

**568 The Professional Counselor in the Elementary School (3)** Role, responsibilities, and practices of the contemporary elementary school counselor. Development of the guidance pro-

gram; relationship to curricula; position of the counselor with respect to administration, parents, children, and teachers.

**569 The Professional Counselor in the Secondary School (3)** Role, responsibilities, and practice of the contemporary secondary school counselor. Referral resources, parental conference techniques, relationship with administration and staff, curricula; administrative aspects of the guidance program.

**571 Theories of Counseling (3)** The basic theories of counseling, with emphasis on historical and philosophical origins. Historical antecedents of each theory, and evaluation of the potential of each theory as a viable approach for school counselors.

**572 Counseling and Consultative Techniques in the Elementary School (3)** Practical application of the basic theories of counseling in the elementary school setting. Application of counseling and consultative techniques in simulated settings within the elementary school framework. Counselor relationships with pupils, teachers, administrators, pupil personnel staff and community resources is emphasized.

**573 Counseling and Consultative Techniques in the Secondary School (3)** Practical application of the basic theories of counseling in the secondary school setting. Application of counseling and consultative techniques in simulated secondary school settings, with emphasis on the pupil, teacher, administration, parents, staff, and community resources.

**574 Group Procedures in the Elementary School (3)** Emphasis is on mastering in the basic theories and techniques appropriate to group procedures in the elementary school. Exposure to planning, implementing, and evaluating group activities.

**575 Group Procedures in the Secondary School (3)** Mastery of theories and techniques basic to planning and implementing group activities in the secondary school. Evaluation of group activities is also stressed.

**578 Counseling Techniques with Adults (3)** A pre-practicum experience in counseling adults. Application of principles and practices; preparation and techniques for group counseling.

**585 Contemporary Issues and Trends in Guidance (3)** Contemporary issues and current trends in school guidance. The student evaluates basic positions and integrates them into the prospective role of a school counselor.

**590 Practicum in Elementary Guidance (3)** Supervised practice in an approved elementary school. In addition to work under the direction

of a professional counselor in the school setting, the student meets on campus with the practicum supervisor for intensive seminar activities.

**591 Practicum in Secondary Guidance (3)** Supervised practice in an approved secondary school. The student works under the direction of a professional counselor in the school setting, and meets on campus with the practicum supervisor for intensive seminar activities.

**592 Practicum in Higher Education Counseling I (3)** Supervised counseling experiences in multi-

ple settings within the higher education system. A related on-campus seminar is included.

**593 Practicum in Higher Education Counseling II (3)** Intensive supervised counseling experience in an approved higher education setting. The practicum consists of an on- and off-campus experience.

**599 Independent Study (1-3)** Independent research and study under the direction of a faculty member. PREREQ: permission of department chairperson and instructor.

## SECONDARY EDUCATION AND PROFESSIONAL STUDIES

Secondary Education and Professional Studies Program is responsible for the professional courses offered for certification on the secondary level and in the Master of Education degree programs having academic concentrations. The department also offers other professional course work required in all M.Ed. programs and some courses designed for election by educators and others who wish to develop new insights and/or to strengthen professional skills.

In addition the department offers the degree of Master of Education in Secondary Education.

## MASTER OF EDUCATION

(Secondary Education—Academic Subject Majors)

The Master of Education program is offered with academic concentrations in English, French, German, Latin, Spanish, biology, mathematics, and social science (with concentration in history). This program is offered cooperatively by the School of Education and the Faculty of Arts and Sciences. The academic requirements for each concentration are found under the respective department.

This degree affords students the opportunity to strengthen their knowledge in the major subject matter field, as well as their professional knowledge and competence.

Students earning degrees in this program must be advised both by the department of the subject field and by the Department of Counselor, Secondary, and Professional Education. It is the responsibility of the students to arrange for conferences with both departments in planning their programs.

## REQUIREMENTS FOR THE MASTER OF EDUCATION

(Secondary Education—Academic Subject Majors)

36 Semester Hours

- |    |                                                                 |         |
|----|-----------------------------------------------------------------|---------|
| I. | Professional Education Requirements*                            | 12 s.h. |
|    | A. EDF 510 Educational Foundations (3)                          |         |
|    | B. A minimum of one course from each of the following groups:   |         |
|    | Group 1                                                         |         |
|    | EDF 516 Resource Allocation in the Schools (3)                  |         |
|    | EDF 520 Comparative Education (3)                               |         |
|    | EDF 521 Contemporary British Education (3)                      |         |
|    | EDF 523 Education Behind the Iron Curtain (3)                   |         |
|    | EDF 580 History of American Education (3)                       |         |
|    | EDF 581 Philosophy of Education (3)                             |         |
|    | EDF 582 Seminar in the History of the Problems of Education (3) |         |
|    | EDF 589 Sociological Foundations of Education (3)               |         |

\*Chosen in conference with the secondary education and academic advisors according to the needs of the student.

**Group 2**

EDF 503	The Emerging Curriculum (3)
EDF 507	Values Clarification in Human Relations (3)
EDF 509	Contemporary Teaching Trends (3)
EDP 531	Principles of Educational Testing (3)
EDP 550	Advanced Educational Psychology (3)
EDP 557	Essentials of Learning (3)
EDP 559	Constructing and Evaluating Behavioral Objectives (3)
EDP 560	Behavior Modification (3)
EDP 569	Adolescent Development and Learning (3)
EDS 524	Supervision of Student Teaching (3)
EDU 502	Human Relations in the School and School and Community (3)

**Group 3**

EDC 567	Group Dynamics (3)
EDF 504	Middle School Workshop (3)
EDF 505	Individually Prescribed Instruction (3)
EDF 506	Design and Use of Individualized Learning Packages (3)
EDF 570	The Community/Junior College (3)
EDF 590	School Law (3)
EDS 502	Secondary School Curriculum (3)
EDS 506	The Junior High School (3)
EDU 501	Curricular Adaptations for the Disadvantaged (3)

- |      |                                                  |            |
|------|--------------------------------------------------|------------|
| II.  | Subject Matter Concentration Requirements        | 20-22 s.h. |
|      | A. Methods and Materials of Research (2-3)       |            |
|      | B. Academic Subject (18-20)                      |            |
|      | (See respective academic department for details) |            |
| III. | Electives (Professional or Academic)*            | 0-4 s.h.   |

**COMPREHENSIVE EXAMINATIONS**

The student must perform satisfactorily on the final comprehensive examinations covering the subject-matter concentration and the professional-education requirements.

**MASTER OF EDUCATION IN SECONDARY EDUCATION****36 Semester Hours**

This program provides another option within the Master of Education shown immediately above, and is designed primarily to strengthen the professional knowledge, skills, and understandings of the graduate student and of teachers in service, and to make their preparation more relevant to a variety of educational situations. It also provides the professional background for dealing effectively with problems encountered in secondary schools. Through its 15 semester-hour elective area, the program affords students the opportunity to strengthen their knowledge in the subject-matter field.

**Admission to the Program**

In addition to meeting admission requirements of the college the student must:

1. Be approved by the Department of Counselor, Secondary, and Professional Education for graduate work.
2. Attain an acceptable score on the Graduate Record Examination or the Miller Analogies Test.

It is strongly recommended that the applicant have a valid teaching certificate. Applicants whose certification is not in secondary education may, at the department chairperson's dis-

\*Chosen in conference with the secondary education and academic advisors according to the needs of the student.

cretion, be required to take course work beyond the minimum semester-hour requirements for the degree.

Upon admission, students will be assigned advisors who will help them to outline an appropriate program. All work for the program must be approved by the advisor and the departmental graduate committee.

### Requirements for Admission to Degree Candidacy

During the pre-candidacy period the student must:

1. Attain full status, if admission status to the program was provisional.
2. Complete these required courses: EDF 500, 510, and EDP 550.
3. Achieve a minimum overall average of 2.75 and a minimum average of 3.00 in the required courses in Area One or Area Two.
4. Show evidence of academic, personal, and professional qualities which satisfy the advisor and the departmental graduate committee.

### Comprehensive Examination

Students must perform satisfactorily on a written comprehensive examination, which is given at least once in each semester and in regular session of summer. The examination is always given at 6:00 P.M. on Tuesday of the second week of the semester or session.

Application forms for the comprehensive examination are available from the department and must be filed with the department by December 1 for spring semester, May 1 for regular session, and July 14 for fall semester.

To be eligible the students must have:

1. Taken the required courses: EDF 500, 510 and EDP 550.
2. Completed 28 semester hours of work including the 9 semester hours of required courses and 12 semester hours from Area One or Area Two.
3. Attained a minimum overall average of 2.75 and a minimum average of 3.00 in the required courses and the courses in Area One or Area Two.
4. Received their advisors' recommendations and the approval of the departmental graduate committee.

Students who fail the comprehensive examination are allowed a second attempt. A second failure terminates candidacy.

## REQUIREMENTS FOR THE MASTER OF EDUCATION IN SECONDARY EDUCATION

### 36 Semester Hours

- I. Required Courses: EDF 500, 510, EDP 550—9 semester hours
- II. Area of Concentration Requirements: A minimum of 12 semester hours must be selected from one of the following two areas:
  - A. Area One: EDF 515, 516, 520, 521, 523, 570, 580, 581, 582, 589, 590
  - B. Area Two: EDF 503, EDF 504, EDF 505, EDF 506, EDF 507, EDF 590, EDM 511, EDP 557, EDP 559, EDP 560, EDP 569, EDS 502, EDS 506, EDS 524, EDU 501.
- III. Electives: 15 semester hours. The electives may be from courses in Area One and Area Two above, or from courses in the student's teaching field. They may also be a combination of both.

**COURSE DESCRIPTIONS****FOUNDATIONS**

Symbol: EDF

**500 Methods and Materials of Research in Education (3)** Historical, descriptive, and experimental methods of research. Methods for locating, evaluating, interpreting, and reporting research data. Each student prepares a research prospectus. Offered every semester.

**501 Methods and Materials of Research and Study for Elementary Education Majors (3)** Historical, descriptive, and experimental methods of research. Methods for locating, evaluating, interpreting, and reporting research data. Introduction to graduate study for elementary majors. Offered every semester.

**502 Methods and Materials of Research for Counselor Education Majors (3)** Designed to enable the counselor to read experimental, quasi-experimental, descriptive and correlational research reported in the professional journals. Both univariate and multivariate designs are emphasized. Offered every semester.

**503 The Emerging Curriculum (3)** Curriculum trends, beginning in 1951, for grades kindergarten through 12 by means of three comprehensive topics: (1) the curriculum reform movement, (2) emerging curriculum theory and practice, and (3) the educational reform movement. Offered in summer.

**504 Middle School Workshop (3)** Philosophy, administration, curriculum, staff, and facilities necessary for the most efficient educational experience in the intermediate levels of school. Offered in summer.

**505 Individually Prescribed Instruction (3)** Individually prescribed instructional techniques as applied in the classroom and intensive learning centers. Techniques of academic diagnosis, prescription production, and electronic learning. Students will have an opportunity to work directly with hardware and software components of an intensive learning center. (May be arranged as a workshop). Offered in spring.

**506 Design and Use of Individualized Learning Packages (3)** A review of commercially available individualized learning activity packages which permit the student to progress through a learning continuum at his or her own pace. The student will be required to design and construct an individualized learning package in his teaching area.

**507 Values Clarification in Human Relations (3)** Knowledge of the theories of the values clarification processes as defined by Simon and others. Skills in application of the values clarification processes in personal decisions, in the classroom, and in society. (May be arranged as a

workshop or as modularized independent study.) Offered in summer.

**509 Contemporary Teaching Trends (3)** Team teaching, programmed instruction, and various media of communication in the elementary and secondary schools are evaluated. Effective adaptation to newer practices is emphasized. Offered in summer.

**510 Educational Foundations (3)** History of education, integrated with educational philosophy and thought; the long evolution of education theory and issues. Offered every semester.

**515 Federal and State Role in Education (3)** The past, current and future role of the federal and state governments in education in the United States. Emphasis on the applications to the Commonwealth of Pennsylvania. Impact of federal legislation since 1958. Offered in fall.

**516 Resource Allocation in the Schools (3)** The relationship between the American economy and the efficient allocation of resources within school systems will be examined. Designed for teachers, administrators, school board members, and parents.

**520 Comparative Education (3)** Major problems of education in a number of other countries are related to similar problems in the United States. Contrasting purposes and philosophies and differences in organization and administration are analyzed. Offered in fall.

**521 Contemporary British Education (3)** Consideration of the philosophy of British education today and the ways it has changed in past years. Present-day curricula and philosophies and differences in organization and administration are analyzed.

**523 Education Behind the Iron Curtain (3)** Educational structure in the Soviet Union, past, present, and future. Khrushchev's educational reforms and the return to the ten-year school. Educational structure in certain Eastern European countries also included.

**570 The Community/Junior College (3)** An analysis of the programs, problems, and students of a two-year college. Emphasis on the development, special philosophies, and current issues relating to the community or junior college. Designed for students preparing to be teachers and/or administrators in these colleges. Offered in spring.

**580 History of American Education (3)** Nature and direction of American education, studied through individual and group research. Offered in fall.

**581 Philosophy of Education (3)** Selected philosophies and their influence on educational

principles and practices in a democratic social order. Offered in spring.

**582 Seminar in the History of the Problems of Education (3)** Historical study of the recurrent problems of education and their solutions. Implications of these solutions for contemporary American educational problems.

**589 Sociological Foundations of Education (3)** Study of the socio-cultural influences on the structure of American educational institutions.

**590 School Law (3)** Legal structure for educational organization on state, intermediate, and local levels. Legal status of the board of education; legal responsibilities of the teacher; legal responsibilities between the board of education and the student. Offered in summer.

**599 Workshop in Professional Education (3)**

## EDUCATIONAL PSYCHOLOGY

Symbol: EDP

**531 Principles of Educational Testing (3)** Designed to prepare teachers with the skills important in the three areas of educational testing; teacher-made tests (objective and essay); computerized programs for grading and reporting results and for improving the test quality through item analysis procedure; and the evaluation of the psychometric characteristics of standardized tests. PREREQ: EDP 351 or special permission of instructor. Offered in Spring and Summer.

**550 Advanced Educational Psychology (3)** Processes by which skills, understanding, concepts, and ideals are acquired; teaching practices in relation to basic research concerning learning; similarities and differences in theories of learning. PREREQ: a course in educational psychology. EDF 500. Offered every semester.

**557 Essentials of Learning (3)** Study of the applications of learning theory to classroom teaching with emphasis on those principles derived from classical and operant conditioning. Retention and transfer of learning also considered. Offered in fall.

**559 Constructing and Evaluating Behavioral Objectives (3)** Consideration and evaluation of behavioral objectives. Students write and evaluate their own objectives under individual guidance. (May be arranged as a workshop.)

**560 Behavior Modification (3)** Study and implementation of principles of classical and operant conditioning to the modification of student behavior in residential and educational settings. Emphasis on such areas as classroom discipline, student values, and student study habits. (May be arranged as a workshop.) Offered in summer.

**569 Adolescent Development and Learning (3)** Mental, physical, emotional, and social development and behavior of the adolescent with emphasis on various types of learning. Case studies are used. Offered in fall.

**599 Workshop in Educational Psychology (3)**

## SECONDARY EDUCATION

Symbol: EDS

**502 Secondary School Curriculum (3)** Current practices and trends in reorganizing the secondary school curriculum in the major academic areas. The various integrating techniques. Curriculum development. Offered in spring.

**506 The Junior High School (3)** Development and functions of the junior high school; philosophy underlying its development. Curriculum, teaching assignments, characteristics of pupils, and special problems. PREREQ: a course in adolescent development. Offered in fall.

**524 Supervision of Student Teaching (3)** Designed for teachers who cooperate or expect to cooperate in West Chester's student teaching program. Basic principles, practices, materials, and resources for an effective student teaching program. PREREQ: certification for teaching.

**590 Independent Study (1-3)** Enrollment by permission only; number of credits determined by department.

**599 Workshop in Secondary Education (3)**

# Educational Research

Dr. Hsu, *Program Coordinator*

The School of Education offers a degree program leading to the Master of Science in educational research. Designed primarily for those desiring research positions in local school districts, the degree is also appropriate for research positions in colleges and universities, community colleges, governmental agencies, regional educational laboratories, and industry.

## Admission to Degree Program

The applicant will be admitted to the program on the basis of:

1. A minimum over-all average of 2.50 in undergraduate studies and 2.75 in the major field.
2. Graduate Record Examination Aptitude Test.
3. Personal interview with the coordinator of the program.

Any candidate admitted to graduate study, but not to the degree program in educational research, may take RES courses with permission of the coordinator. There is no guarantee that courses taken by a non-degree student may later satisfy degree requirements for the M.S. in educational research.

## Requirements for Admission to Degree Candidacy

Upon completion of 12 semester hours, which must include PSY 501—Introductory Statistics for the Behavioral Science and EDF 500—Methods and Materials of Research in Education, the candidates will be advanced to degree candidacy provided they have maintained a minimum average of 3.00 and passed a qualifying examination.

## The Internship

After mastery of the tool courses (PSY 501, EDF 500, PSY 502, and RES 520), students will serve an internship with an outside agency, or in the Office of Institutional Research, conducting educational research. During this period they will utilize the skills they have developed to design and conduct a research project under the joint supervision of college and/or host institution personnel.

## The Comprehensive Examination

To be eligible for the comprehensive examination the candidate must:

1. Have completed at least 28 semester hours and all tool courses prior to the semester in which the examination is taken.
2. Have maintained an overall average of at least 3.00.

Candidates must indicate by letter their intention to take the examination. The coordinator should receive this letter within the first 10 days of the semester in which the candidate desires the examination.

Candidates who fail the comprehensive examination are permitted one re-examination after an interval of at least one semester but not more than two years.

## Requirements for the Degree

1. Satisfactory completion of the curriculum outlined below.
2. An overall average of 3.00 in graduate courses taken in the degree program.

- 3. Satisfactory performance on the comprehensive examination.
- 4. Completion of research report or master's thesis approved by the coordinator.

MASTER OF SCIENCE IN EDUCATIONAL RESEARCH

(39 Semester Hours)

Required Courses:

Introductory Statistics for the Behavioral Sciences (PSY 501), Methods and Materials of Research of Education (EDF 500), Advanced Statistics for the Behavioral Sciences (PSY 502), Research Design (RES 520), Assessment Methods in Guidance (EDC 540), Introduction to Computers (CSC 501), The Emerging Curriculum (EDF 503), Educational Foundations (EDF 510), Federal and State Role in Education (EDF 515), Advanced Educational Psychology (EDP 550), Internship Program in Education (RES 592)—33 semester hours.

Research Project:

Research Report (RES 600) or Thesis (RES 610) 3 semester hours.

Electives:

3 semester hours to be chosen under advisement from the offerings of any department, with the approval of the department concerned and of the coordinator.

COURSE DESCRIPTIONS  
EDUCATIONAL RESEARCH

Symbol: RES

520 Research Design (3) Principles for efficient design of experiments and other types of observational programs. Sampling techniques, methods of analysis, threats to valid inference. PREREQ: PSY 501.

590 Independent Study in Educational Research (1-3) Research project, reports, readings in educational research. PREREQ: coordinator's approval.

592 Internship Program in Educational Research (3) Opportunity for prospective educational research to design, conduct, and analyze a study and to prepare a report of the research. The internship is served in local educational agencies, county offices, federal project centers, the Pennsylvania Department of Education, or other research environments. The intern is supervised by both host and college personnel.

600 Research Report (3)

610 Thesis (3)

Urban Education

Mr. Leeds, *Coordinator*

Symbol: EDU

501 Curricular Adaptions for the Disadvantaged (3) Curricular innovations which attempt to aid the culturally disadvantaged in developing skills necessary for maximal personal adjustment to society. Survey of urban problems and their relationships to inner-city school.

502 Human Relations in the School and Community (3) Intensive study of the inner city community and its close relationship with the school society. Analysis of prejudice and its implication of community and school power structures.

590 Independent Study (1-3)

599 Workshop in Urban Education (3)

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# Criminal Justice

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Dr. Metz, *Chairperson*

Dr. Seidel, *Coordinator of Graduate Studies*

## PROFESSOR

Thomas J. Francella, J.D., *University of Baltimore*

## ASSOCIATE PROFESSORS

Harold W. Metz, Ed.D., *West Virginia University*

Janet C. Seidel, Ed.D., *Temple University*

## ASSISTANT PROFESSOR

William B. Anderson, Jr., B.A., *Pennsylvania State University*

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## MASTER OF SCIENCE IN CRIMINAL JUSTICE

The Department of Criminal Justice offers a program leading to the Master of Science in Criminal Justice with areas of concentrations in (1) Law Enforcement, (2) Corrections, (3) Management, and (4) Education. The program consists of 36 semester hours including the following requirements.

- |                                                                              |         |
|------------------------------------------------------------------------------|---------|
| 1. Required Courses                                                          | 12 s.h. |
| a. CRJ 508                                                                   |         |
| b. Choose any three of the following four courses:<br>CRJ 500, 502, 504, 506 |         |
| 2. Area of Concentration                                                     | 12 s.h. |
| a. Law Enforcement: CRJ 520, 522, 524, 600                                   |         |
| b. Corrections: CRJ 524, 530, 532, 600                                       |         |
| c. Management: CRJ 506, 510, 512, 600                                        |         |
| d. Education: CRJ 500, 524, 540, 600                                         |         |
| 3. Electives                                                                 | 12 s.h. |

## ADMISSION REQUIREMENTS

All candidates must meet the general requirements for admission to a graduate degree program at West Chester State College. All candidates must apply through the graduate office. Upon receipt of all necessary credentials, the graduate office will forward the application materials to the criminal justice department for further consideration.

## DEGREE REQUIREMENTS

The following requirements must be met by all candidates prior to receiving the Master of Science Degree in Criminal Justice.

1. The candidate must submit an acceptable score on the Miller Analogies Test taken at or before the satisfactory completion of six semester hours of course work.
2. The candidate must apply to be admitted to candidacy after the completion of twelve to fifteen hours of course work.
3. The candidate must pass a comprehensive written examination after the completion of thirty semester hours of course work.
4. The candidate must complete a minimum of thirty-six semester hours of course work with a cumulative average of 3.0 (based on a 4.0 system).

**COURSE DESCRIPTIONS****CRIMINAL JUSTICE**

Symbol: CRJ

**500 History and Philosophy of Law and Justice (3)** This course is intended to: (a) aid the beginning graduate student in understanding the historical and philosophical influences upon the American criminal justice system; (2) introduce the student to a broad range of individuals who, over a period of 2,000 years, have made significant contributions to the formulation and process of justice; and (3) examine and analyze various other systems of criminal justice found in divergent and dissimilar cultures.

**502 Conflicts in the Criminal Justice System (3)** Conflicting views of participants in the criminal justice system from offense to release are explored. Analysis of the distinctive individual statements and views of victims, investigators, prosecution, defense counsel, judges, penologists, religio-psychiatric figures, convicted persons, and the general public.

**504 Resolution of Internal Personal Conflicts (3)** A survey course which reviews current methods of dissolving and resolving internal personal conflicts such as: transactional analysis, transcendental meditation, reality therapy, and behavior modification. Students will be introduced to theory and demonstration.

**506 Problems in Management and Administration (3)** This course is intended to aid in the instruction of graduate students who are potential candidates for future administrative positions. Its objective is neither to present a new approach to the field or to support an existing one; rather, it is to provide the student with a well rounded view of the subject and to lay the ground work for further study. This is done by bringing together the most appropriate concepts from the various approaches to management, as well as from other disciplines, that have contributed to a fuller understanding of the subject.

**508 Research, Design, and Analysis (3)** Emphasis upon social research processes: problem identification; data collection and use; application of statistical procedures and computer techniques; hypothesis testing and problem resolution within the framework of applied social planning and decision making.

**510 Criminal Justice Planning (3)** This course is intended to aid in the instruction of graduate students who are potential candidates for future planning, evaluation or administrative positions. Given the newness of criminal justice planning, this course represents a beginning effort at a comprehensive discussion and review of justice system planning and evaluation. A good deal of time is devoted to incremental planning and the

development of more useful plans through a process of successive approximations, in which plans are developed, tried out, and modified in the light of new experience.

**512 Budget Research and Analysis (3)** This course is intended to aid in the instruction of graduate students who presently hold administrative positions or who are potential candidates for such positions. The course represents a beginning effort at a comprehensive discussion and review of accounting, budgeting, and statistical principles and procedures. A good deal of time is devoted to zero-based budgeting and the application of the computer in decision-making.

**520 Major Case Management (3)** Management of investigative and administrative techniques in major crimes. Emphasizes management for maximized cost effectiveness in deployment of assets. Students will analyze and identify techniques as demonstrated in case examples. Focus placed on early recognition of crime dimensions for precise application of available personnel, equipment, and money. Control and application of finite resources is examined in relation to solution.

**522 Official Corruption (3)** This course analyzes the usually nonviolent criminal conduct variously described as white collar crime, official corruption, systematic crime, or violations of trust, that is characterized by calculation, deceit, and personal enrichment. Examples from industry and government (including the criminal justice system) are included.

**524 Law and regulation of the Youthful Offender (3)** This course will bring together the leading cases that have reached the Supreme Court, as well as other important lower federal and state court decisions on the juvenile justice process.

**530 Interviewing & Counseling the Offender (3)** Techniques of counseling applicable to law enforcement and corrections officers. Areas of study include the initial interview, interrogation, handling the informer, manipulative behavior of offenders, report writing, and exit interview. Role playing and sociodrama are used.

**532 Offender and Staff Rights and Responsibilities (3)** A course designed to provide the people who are involved in the correctional process with a basic introduction into the emerging field of law in this area. Encourages understanding of rights and responsibilities of the incarcerated offender and the administrative staff.

**540 Legal Studies in the Schools (3)** To provide an understanding of practical law which will be of use to students in their every day life, and to develop a more positive attitude on the part of students as citizens toward the role that law

plays in the American society. To improve analytical skills and promote critical thinking, and to decrease anti-social behavior by teaching "preventive law."

**560 Notable Criminal Cases (3)** Selected factual accounts of criminality and criminal behavior over the past 75 years are analyzed. Selection is based on significance and instructional quality of the account, and while primarily devoted to the United States, cases include one classic misfunction of another country. Course is designed through reading and class analysis, to illuminate a wide spectrum of specific criminal conduct and the related investigative and judicial responses.

**566 Survey of the Correctional Field (3)** The study of federal, state, and local correctional systems, including historical perspectives, theoretical assumptions, and major changes recommended by the National Advisory Commission and the President's Task Force. Opportunities will be provided to visit institutions and agencies and participate in discussions with administrative personnel within the system.

**572 Instruments in the Detection of Deception (3)** A survey of polygraph development and its use from the early 1900's to the present. Covers current legislation regulating polygraph use and measures for self-regulation adopted by local, state and federal agencies. Illustrates proper and

improper use of the polygraph through case examples. Demonstrates polygraph technique in a classroom/laboratory setting. Other instruments measuring voice stress and described as are the legal problems connected with their use.

**590 Practicum (6)** A field experience (internship) program for pre-service students only.

**599 Independent Studies in Criminal Justice (1-3)** Research projects, reports, and readings in criminal justice. Approval of department chairperson.

**600 Pro Seminar (3)** Each graduate student will be expected to participate in a seminar in his/her area of concentration. The end result of this seminar will be a completed research paper evaluated on the basis of: (1) selection of topic, (2) quality of research, and (3) oral presentation. (PREREQ: CRJ 508)

**610 Thesis (6)** Bound and shelved in the library, the thesis stands as an example of the students' ability to plan, organize, and direct a research effort designed to discover, develop, or verify knowledge.

The Department of Criminal Justice has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or Department Chairperson: CRJ 430, 450, 451, 470, 496.

## Earth Science—See Geology and Astronomy

# Economics

Dr. DeMoss, *Chairperson*

### PROFESSORS

Eugene W. Schooler, Ph.D., *Harvard University*

Patrick J. M. Sylvester, Ph.D. *Bryn Mawr College*

### ASSOCIATE PROFESSOR

Phillip DeMoss, Ph.D., *Kansas State University*

Dan Mohan, Ph.D., *Rutgers University*

### ASSISTANT PROFESSORS

Kevin Dunleavy, Ph.D., *Duke University*

Tahany Nagger, Ph.D., *University of Oklahoma*

The Department of Economics has no master's degree program but offers the following courses. They are particularly appropriate for the M.A. in social science, an interdisciplinary program.

## COURSE DESCRIPTIONS

### ECONOMICS

Symbol: ECO

**530 Economics and Public Policy (3)** The principles and methods of economic analysis are applied to an evaluation of the American economic system. Inflation, recession, and economic growth; problems of public finance and taxation; public policy regarding the concentration of economic power.

**531 Comparative Economic Systems (3)** Essential economic features of economic systems, including capitalism, socialism, communism, and fascism.

**532 History of Economic Thought (3)** The growth and development of contemporary economic thought from Plato to the present, with emphasis on the mercantilist, classical, marginalist, and Keynesian schools.



## English

Dr. McKenty, *Chairperson*

Dr. Browne, *Coordinator of Graduate Studies*

### PROFESSORS

Michael W. Brooks, Ph.D., *University of Toronto*

Joseph P. Browne, Ph.D., *University of Pennsylvania*

Joseph Falgie, Jr., Ph.D., *University of Pennsylvania*

John L. Gaunt, Ph.D., *University of Maryland*

Paul D. Green, Ph.D., *Harvard University*

William H. Henry, Jr., Ph.D., *Temple University*

John P. Kent, Ph.D., *University of Illinois*

Alice B. Markow, Ph.D., *University of Pennsylvania*

Lynette F. McGrath, Ph.D., *University of Illinois*

David E. McKenty, Ph.D., *University of Pennsylvania*

Kostas Myrsiades, Ph.D., *Indiana University*

Bernard S. Oldsey, Ph.D., *Pennsylvania State University*

S. Keith Taylor, Ed.D., *Temple University*

Robert H. Weiss, Ph.D., *Temple University*

Theodora Lee West, Ph.D., *University of Pittsburgh*

Elsie B. Ziegler, Ed.D., *Temple University*

### ASSOCIATE PROFESSORS

William H. Fordyce, Ph.D., *Harvard University*

John T. Kelly, Ph.D., *University of Oklahoma*

Dwight T. McCawley, Ph.D., *University of Illinois*

John Ward, Ph.D., *University of Delaware*

C. James Trotman, Ed.D., *Columbia University*

The Department of English offers two degree programs: the Masters of Arts in English and, in cooperation with the School of Education, the Master of Education in English. The Master of Arts permits the student to attain any of a number of goals. It may further scholarship in literature, language, and writing; prepare for study toward the Ph.D.; or provide a foundation for teaching in schools, community colleges, and junior colleges. The Master of Education is designed primarily to enhance the professional careers of English teachers. The De-

partment of English also participates in an inter-disciplinary program leading to the Master of Arts in Teaching English as a Second Language. (See Teaching English as a Second Language.)

In addition, the Department of English encourages students to take courses for professional growth and offers assistance and courses for students wishing to acquire certification in English.

### ADMISSION TO DEGREE PROGRAMS

The applicant must (1) meet the general requirements for admission to degree study at West Chester State College (See appropriate pages at the beginning of the Graduate Studies Bulletin), (2) submit results of the Aptitude Test (Morning Test) of the Graduate Record Examination, if deemed necessary, (3) satisfy departmental requirements for admission, and (4) take additional undergraduate and/or graduate course work deemed necessary.

### DEGREE REQUIREMENTS:

#### MASTER OF ARTS IN ENGLISH

30 Semester Hours

##### REQUIRED COURSES

3 s.h.

ENG 500 (to be taken before the completion of 12 semester hours of graduate credit)

##### ELECTIVES

Selected under advisement from courses in English and approved related fields (e.g., history, linguistics). At least 21 semester hours must be in English courses.

#### MASTER OF EDUCATION IN ENGLISH

34 Semester Hours

##### REQUIRED COURSES

6 s.h.

ENG 500 (to be taken before the completion of 12 semester hours of graduate credit) and  
ENG 591

##### ELECTIVES

Selected under advisement from courses in English and approved related fields (e.g., linguistics, reading). At least 12 semester hours must be in English courses.

##### COURSES IN EDUCATION

At least 12 semester hours of course work must be taken in education. See pages 60-61.

For either degree, the student must pass a written comprehensive examination, offered on the second Wednesday of October, April, and July. Those who fail the examination twice must obtain the approval of the Department of English to take it a third and final time.

For more information concerning graduate work in English, see the **Handbook for Graduate English Students**, obtainable from the coordinator of graduate studies in English.

## COURSE DESCRIPTIONS

## ENGLISH

Symbol: ENG

## GENERAL TOPICS (500-514)

**500 Methods and Materials of Research (3)** Basic techniques and procedures in research. The major types of research and the methods of locating, evaluating, and interpreting evidence. Includes the preparation of a research outline and paper.

**501 Applied Literary Criticism (3)** Study of various methods of literary analysis, with emphasis on the application of these methods in response to specific works of literature chosen from the principal genres of poetry, fiction, and drama.

**502 History of Criticism (3)** An historical study of literary criticism and aesthetic theory from Plato and Aristotle to the present.

**507 Literature Seminar (3)** Topics announced annually.

**508 Writing Seminar (3)** Discussion and development of major projects underway.

**509 Writing Seminar in the Novel I (3)** A course in the writing and preparing of booklength manuscripts (novel, novella, "non-fictional" novel) with the intention of submission for publication. Also includes coverage of fictional aspects and techniques used in writing memoirs, biography, current history.

**510 Writing Seminar in the Novel II (3)** A continuation of ENG 509.

## ENGLISH LITERATURE (515-544)

**517 Beowulf (3)** An analysis of the entire poem in Old English. Emphasis on the artistic, linguistic, and historic values. PREREQ: ENG 584 or the equivalent.

**518 Chaucer (3)** A study of the *Canterbury Tales* and *Troilus and Criseyde*.

**519 16th-Century Poetry and Prose (3)** A survey of the major poetry and prose written in England during the Tudor period: Skelton to Shakespeare.

**520 Spenser and Milton (3)** The major works of Spenser and Milton studied in relation to the intellectual climate of the Renaissance. Emphasis on the *Faerie Queene* and *Paradise Lost*.

**521 Major Renaissance Writers (3)** A study in depth of major figures of the Renaissance. Intellectual background and literary influences. Donne, Milton, More, Spenser, Sidney.

**522 English Drama to 1642 (3)** A survey of English Drama (exclusive of Shakespeare) from its

medieval beginnings to the closing of the theatres in 1642.

**525 Shakespeare's Tragedies and Histories (3)** Histories and tragedies read with analysis of dramatic and poetical effects.

**526 Shakespeare's Comedies and Poems (3)** The comedies analyzed. The poems read in relation to Shakespeare's developing, dramatic and poetic power.

**527 17th-Century Poetry and Prose (3)** A study in depth of the major 17th-century English poets and prose writers from Donne to Milton.

**529 18th-Century Poetry and Prose (3)** A study of the literature of the era, with emphasis on the cultural context, aesthetic theory, and the evolution of poetic techniques.

**530 Restoration and 18th-Century Drama (3)** Critical history of British drama from the reopening of the theaters to Sheridan. Major playwrights and study of theater history.

**531 18th-Century British Novel (3)** A study of the rise of the novel and its development in the 18th Century. Major novelists treated: Defoe, Richardson, Fielding, Smollett, Sterne.

**533 Romantic Poetry and Prose (3)** The poetry and prose of the early 19th century with emphasis upon the five major poets (Wordsworth, Coleridge, Byron, Shelley, Keats) and three major essayists (Lamb, Hazlitt, De Quincey).

**534 Victorian Poetry and Prose (3)** A study of Victorian poetry and prose to 1870: Tennyson, Browning, Ruskin, Arnold, Carlyle, Newman, Darwin, Swinburne.

**535 Late Victorian and Edwardian Literature (3)** A study of the poetry and prose of Hopkins, Pater, Morris, Wilde, Shaw, Hardy, and their contemporaries.

**536 19th-Century British Novel (3)** Development of techniques in the British novel from Scott to Hardy.

**537 Modern British Novel (3)** A study of the British novel from 1914 to the present.

**538 Modern British Poetry (3)** A comprehensive study of the major British poets from 1890 to the present. Dowson, Housman, Hardy, Owen, Yeats, Eliot, Thomas, Lawrence, Auden.

**539 Major 20th-Century Irish Writers (3)** A comprehensive study of significant Irish writers of the 20th century: Yeats, Joyce, O'Casey, Synge, O'Connor, O'Faolain, Beckett, Shaw.

**540 Joyce and Beckett (3)** Detailed critical analysis of Joyce's *Dubliners*, *A Portrait of the Artist as a Young Man*, *Exiles*, and *Ulysses*; Beckett's drama and novels.

**541 20th-Century Drama (3)** Principal British and American playwrights from Shaw to Pinter and Albee.

**544 Seminar in English Literature (3)** Topic announced when offered.

### AMERICAN LITERATURE (545-564)

**547 American Literary Movements (3)** Major movements in the development of American literature. Influence of leading writers on literary concepts, trends, and critical dicta; Topics to be announced.

**548 Hawthorne and Melville (3)** A study of their works and representative literary criticism.

**549 Twain and James (3)** A study of their works and representative literary criticism.

**551 Hemingway and Faulkner (3)** The works of Hemingway and Faulkner and the literary relationship of these works.

**557 Major 20th-Century American Poets (3)** A close study of several major modern American poets.

**558 20th-Century American Writers (3)** Major writers and literary movements from 1900 to the present: Topics to be announced.

**562 Modern Afro-American Literature (3)** An intensive study in themes and trends in modern Afro-American literature.

**564 Seminar in American Literature (3)** Topic announced when offered.

### COMPARATIVE LITERATURE (565-574)

**565 Comparative Literature (3)** Studies in international literary and cultural relations; the characteristics and relations of universal literary types, themes, and genres: Topics to be announced.

**566 Comparative Literature: The Greek Myths (3)** The function and purpose of the Greek myths and their treatment in Western literature.

**570 British and Continental Short Story (3)** The short-story form; its origin and development. Current trends. Influences of German, French, and Russian writers upon the British form.

### LANGUAGE (575-590)

**575 Structure of Modern English (3)** A detailed analysis of the modern descriptive approach to the study of English grammar and how it compares with the traditional approach.

**576 English as a Second Language (3)** Implications of the nature of language in teaching English to speakers of other languages. Methods and materials for teaching English as a second lan-

guage. PREREQ: LIN 501 or permission of instructor.

**577 History of the English Language (3)** Review of the major influences on the development of the English language. PREREQ: LIN 501 or LIN 503.

**578 Modern English (3)** A study of the development of the English language from 1450 to the present (exclusive of American English).

**579 Studies in American English (3)** Historical processes in the development of American and British English. Regional and social dialects of American English. Usage and sociolinguistics.

**580 English Language Workshop (1-4)** Workshop to survey recent developments and newer concepts in English linguistics for teachers. Variable structure and credit, by arrangement with individual school districts.

**584 Old English Language and Literature (3)** An introductory study of the language through a reading of selected religious and secular poetry and prose.

**585 Middle English Language and Literature (3)** An introductory study of the language (1150-1450) through a reading of selected texts (exclusive of Chaucer).

**589 Language Seminar (3)** Studies in English language and linguistics. Topics announced when offered. PREREQ: LIN 501 or the equivalent.

**590 Independent Study (1-3)** Research projects, reports, specialized readings. PREREQ: approval of instructor and coordinator of graduate studies in English.

### TEACHING SKILLS (591-599)

**591 Modern Techniques for the Teaching of English (3)** Techniques of teaching language arts, composition, and literature in the secondary school. Practice in planning and designing units and courses of study. Exploration into the latest research in teaching English.

**592 Literature for the Elementary School (3)** The content and approach of the literature program in the elementary school.

**593 Literature for the Secondary School (3)** An examination of the literary interests of the secondary school student. A discussion of the works of major writers who appeal to the teenage student.

**595 Teaching Composition (3)** A survey of developments and research in composition. Focus on the writing process; grading and evaluation; case approaches to writing assignments; writing across the curriculum; remedial/developmental writing.

596 **Composition and Rhetoric (3)** Study of rhetorical, grammatical, linguistic, logical, and psychological principles of written communication; the major modes of discourse; invention, arrangement, and style. Frequent practice in writing.

599 **Workshop in English (1)** Each workshop will focus on specific issues and problems in the teaching of English and will introduce appropriate instructional materials and techniques.



# Ethnic Studies

## COURSE DESCRIPTION

### ETHNIC STUDIES

Symbol: SSC

580 **Ethnic Cultures Workshop (3)** This workshop considers the history, traditions, customs, and contributions to American life of many ethnic groups. The lectures and special programs are designed to increase the students' knowledge of the multicultural nature of American society today. Projects, specifically tailored to the students' individual needs, are directed by a faculty

member of the Ethnic Studies Institute of West Chester State College.

(Workshop offerings, 1982: "Peoples of Chester County," "Black Americans Today.")

(Contact Dr. Irene Shur, Director of Ethnic Studies, Rooms 304 and 409, Main Hall, for information on the ethnic-oriented courses).

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# Foreign Languages

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Mr. Gougher, *Chairperson*  
Dr. Roberts, *Assistant Chairperson*  
Dr. Lombardi, *Coordinator of Graduate Studies*

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## FRENCH

### PROFESSORS

Madelyn Gutwirth, Ph.D., *Byrn Mawr College*  
Alfred D. Roberts, Ph.D., *University of Pennsylvania*

### ASSISTANT PROFESSOR

Robert Greene, M.A., *University of Pennsylvania*

## GERMAN

### ASSOCIATE PROFESSOR

Ronald L. Gougher, M.A., *Lehigh University*

### ASSISTANT PROFESSORS

Ralph A. Eisenstadt, M.A., *University of Illinois*  
Stephen G. Gilmour, Ph.D., *University of Minnesota*

## LATIN

### ASSISTANT PROFESSOR

Erminio Braidotti, Ph.D., *University of Pennsylvania*

### SPECIAL INSTRUCTOR

John P. Rosso, M.A., *University of Pennsylvania*

## SPANISH

### PROFESSOR

Ronald P. Lombardi, Ph.D., *University of Pennsylvania*

### ASSOCIATE PROFESSOR

Jorge Escorcia, M.A., *Boston University*

### ASSISTANT PROFESSORS

Erminio Braidotti, Ph.D., *University of Pennsylvania*  
Christopher Soufas, Ph.D., *Duke University*

## LANGUAGE AND LINGUISTICS

### PROFESSOR

Philip D. Smith, Jr., Ph.D., *Ohio State University*

The Department of Foreign Languages offers two degree programs, one leading to the Master of Education in French, Spanish, German, or Latin, and the other to the Master of Arts in French or Spanish.

The department also cooperates in the offering of an interdisciplinary program leading to the Master of Arts degree in Teaching English as a Second Language. (*See Teaching English as a Second Language.*)

MASTER OF EDUCATION IN FRENCH, SPANISH, GERMAN, OR LATIN

34 Semester Hours

The M.Ed. program requires Methods and Materials of Research in Second Language Education (LAN 500), Techniques of Second Language Teaching (LAN 503), and 18 semester hours in the area of concentration. The concentration may be designed to the student's particular interests and needs; but in French, Spanish, or German, it must include one course each from Groups A, B, C, and D. In Latin the 18-hour concentration is developed from Groups A and B under advisement. Majors in any of the languages may also elect from "Courses Common to all Languages" (see below) for the concentration.

The Department of Foreign Languages has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or Department Chairperson: FRE 401 to 411 inclusive; GER 401 to 412 inclusive; LAT 401-406 and 410-412 inclusive; RUS 401-403 and 410-412 inclusive; SPA 400-406 inclusive, 414, 456, 457 and 410.

At least 12 semester hours of course work in education are required. See pages 60-61.

COURSES COMMON TO ALL LANGUAGES

Introduction to Linguistics (LIN 501) and courses LAN 502 through LAN 600. (See Offerings in Foreign Languages.)

FRENCH	GERMAN
Group A FRE 511-512-513-514-515-516	Group A GER 512-514-515
Group B FRE 520-521-522-523-524-525	Group B GER 520-526
Group C FRE 530-531-532-533-534	Group C GER 532-533-534-535
Group D FRE 540-541-542-543-544	Group D GER 543-544-545
LATIN	SPANISH
Group A LAT 503-511-512-514	Group A SPA 510-511-512-514
Group B LAT 515, 521 through 531, and 535, 536	Group B SPA 520-521-522-523-524-525
	Group C SPA 530-532-533-534
	Group D SPA 540-542-543-544-545

MASTER OF ARTS IN FRENCH OR SPANISH

(30 Semester Hours)

The M.A. programs in French or Spanish provide for either a thesis or non-thesis option. Both require 21 semester hours in the language as follows: FRE or SPA 511 and 6 hours from Groups B, C, and D above. The thesis program includes LAN 610 and an additional elective 3 hours in the concentration. The non-thesis option allows 9 semester hours of electives in the area of concentration.

The Department of Foreign Languages has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or Department Chairperson: FRE 401 to 411 inclusive; GER 401 to 412 inclusive; LAT 401-406 and 410-412 inclusive; RUS 401-403 and 410-412 inclusive; SPA 400-406 inclusive, 414, 456, 457 and 410.

Electives for both options may also be from "Courses Common to All Languages." (See above.) For the M.A. program LAN 550 is strongly recommended.

The candidate for the M.A. degree must pass a reading examination in a second foreign language or must have taken and passed at least one graduate-level course in a second foreign language.

## COURSE DESCRIPTIONS

### COURSES COMMON TO ALL LANGUAGES

Symbol: LAN

**500 Methods and Materials of Research in Second Language Education (3)** Techniques of research in foreign language education including sources, design, interpretation, evaluation, and reporting of data.

**502 Second Languages in the Elementary School (3)** Problems in teaching second languages in the elementary school. Curriculum design, bilingual education, classroom techniques, articulation, materials, testing. Preferably, LIN 501 or equivalent should precede LAN 502.

**503 Techniques of Second Language Teaching (3)** Advanced course in recent theoretical bases; methods for teaching beginning and advanced levels; curriculum design and evaluation. PRE-REQ: LIN 501 or equivalent.

**504 Use of Media in Language Teaching (3)** Role of media in language instruction including the tape recorder, language laboratory, television, and the computer.

**505 Introduction to Bilingual/Bicultural Education (3)** Introduction to history, philosophy, current status, and future directions of Bilingual/Bicultural Education. Survey of materials, tests, techniques, instructional processes and instructional patterns. Overview of testing, placement, and pupil evaluation.

**511 Roman Civilization (3)** Roman civilization and its influences on Europe.

**550 Seminar in Methods and Materials of Research in Language and Literature (3)** The principal tools of research in the field of foreign languages and literature. Methods of conducting and reporting research, emphasizing correctness of form and mechanics of scholarly writing.

**560 Directed Studies (3)** To provide an opportunity for students to pursue areas of study not regularly provided by the department. Focus of course to be announced when offered.

**580 Seminar in Second Language Education (1-4)** Specialized workshop seminar devoted to a particular area of foreign language education.

**585 Institute in Second Language Education (4-8)** In-depth study of a particular area of foreign language education.

**590 Independent Study (1-3)**

**600 Research Report (1-2)**

**610 Thesis (6)**

See also Linguistics (LIN)

## FRENCH

Symbol: FRE

**511 Romance Philology (French) (3)** Historical development of French phonology and morphology from their beginnings to the present. Old French dialects.

**512 Explication de Textes (3)** This French technique of textual and stylistic analysis is studied and practiced.

**513 Phonetics (3)** Mastery of pronunciation and intonation of the French language through use of the phonetic alphabet. Laboratory drill with recordings of leading phoneticians.

**514 Advanced Grammar and Stylistics (3)** A conceptual approach to French grammar. Principles of French grammar and syntax; evaluation of recent changes in grammar and usage.

**515 French Civilization (3)** French civilization as reflected in its art, music, philosophy, and socio-political structure.

**516 Exercices de Style (3)** A study of French literary styles and the language of French literary criticism.

**520 Rabelais (3)** Rabelais: Critical studies of his life and works.

**521 Moliere (3)** The plays of Moliere; his life and times. History of comedy in France.

**522 Voltaire (3)** Major works of Voltaire. Analytical scrutiny of his philosophical views.

The impact of Voltaire on the character of Western civilization.

**523 Rousseau (3)** The works of Rousseau; their philosophical implications and stylistic character. Analysis of the important critical writings on Rousseau.

**524 Balzac (3)** The works of Balzac and a review of Balzacian criticism.

**525 Proust (3)** Reading and analysis of *A la recherche du temps perdu*. Survey of Proustian criticism; Proust the man. His place in the history of the novel.

**530 French Classical Tragedy (3)** The tragedies of Corneille and Racine; the history of tragedy in France.

**531 The French Novel (Through the 19th Century) (3)** History of the novel in France. The works of the major French novelists of the 19th century: Hugo, Stendhal, Balzac, Flaubert, Zola.

**532 The 20th Century French Novel (3)** The French novel in the 20th century and the philosophical, social, and aesthetic doctrines which helped to shape this literary form.

**533 French Lyric Poetry (3)** Evolution of French lyric poetry, with stress on the 19th century. Forms, techniques, rules of French versification.

**534 The Contemporary French Theater (3)** Principal dramatic works of the 20th century, analyzed against the history of the theater in France.

**540 Medieval French Literature (3)** Selected literary masterpieces, representing the various medieval genres: lyric poetry, epic, romance, allegory, fabliaux, prose chronicle, and drama.

**541 French Literature of the Renaissance (3)** Evolution of literary doctrine in the French Renaissance. Influence of various philosophical and aesthetic currents such as Platonism and Petrarchism.

**542 Studies in the 17th Century (3)** Selected writers and their works. Development of literary and aesthetic doctrines of the classical period.

**543 Studies in the 18th Century (3)** Selected masterpieces of the 18th century. Evolution of social and political ideas as reflected in the literary activity of the period.

**544 Studies of the 19th Century (3)** Selected writers of the 19th century of France. An examination of the literary doctrines which evolved through the century.

## GERMAN

Symbol: GER

**513 Phonetics (3)** The sounds, forms, and structure of modern standard German, using recorded materials and selected texts.

**514 Advanced Grammar and Stylistics (3)** Stylistic qualities of modern German, analyzed in selected texts. Oral and written drill.

**515 German Civilization (3)** Social structure of Germany; evolution of its institutions; German achievements in the arts.

**520 Goethe (3)** Goethe's works and his development toward classicism. Critical works dealing with his life and writings.

**526 Kafka (3)** The works of Kafka; criticism dealing with his life and writings.

**532 The Novelle (3)** The German short story from Goethe to the present, including the German Feuilleton and the post-World II writers.

**533 German Lyric Poetry (3)** Major representative poets of the 19th and 20th century.

**534 German Drama of the 19th Century (3)** The works of the major German dramatists of the 19th century.

**535 German Drama of the 20th Century (3)** The works of the major dramatists of the 20th century with attention to expressionism and post-World War II dramatists.

**543 The German Romantics (3)** Selected writers of the German Romantic period.

**544 19th Century German Realism (3)** Major prose and poetry of German realists.

**545 The German Expressionists (3)** Major representative poets of the expressionistic movement.

## LATIN

Symbol: LAT

**503 Techniques of the Teaching of Latin (3)** Survey and analysis of texts and other materials for teaching Latin. Recent methods for elementary and secondary levels. Curriculum for the secondary level.

**511 Comparative Grammar and Syntax of Greek and Latin (3)** The relation of Greek to Latin within the Indo-European family of languages. Survey of the external histories of Greek and Latin. Greek and Latin phonology and morphology with references to principles of syntax.

**512 History of the Latin Language (3)** Development of the Latin language from the earliest inscriptions to the 9th century A.D., with some consideration of the prehistoric language and people of Rome.

**514 Advanced Latin Prose Composition and Translation (3)** Intensive review of Latin syntax, with translation of English passages into Latin and vice versa.

**515 Seminar in Greek and Roman Civilization (3)** A study of literary texts and archaeological

documents illustrative of the Greek mind and/or Roman genius.

**521 Cicero's Philosophical Essays (3)** Studies in the *Somnium Scipionis*, *Tusculan Disputations*, *De Natura Deorum* and *De Officiis* with reference to Cicero's political theory and practice.

**522 Virgil, Eclogues and Georgics (3)** Studies in the themes and methods of Virgil's *Eclogues* and *Georgics*.

**524 Comedies of Plautus (3)** Origins of "comedy of manners," studies in Plautian comedy and in its influence upon later writers of comedy.

**525 Latin Metre and Verse (3)** The formal structure and development of Latin verse from its beginnings to the 20th century. Illustrative readings in early, classical, medieval, and modern Latin poetry.

**526 Greek and Latin Epic (3)** The Greek epic from Homer to Apollonius of Rhodes and the Latin epic from Naevius to Virgil. Readings from the classical epics.

**527 Roman Historiography (3)** Selections from Sallust, Caesar, Livy, Tacitus, and Suetonius. Origins, development, and influence of Roman historiography.

**528 Roman Satire (3)** History of Roman satire and the development of Lucilian Satire. A comparative study of the satires of Horace, Persius, and Juvenal.

**529 The Latin Novel (3)** Emergence and development of the Latin novel. Readings in Petronius' *Cena Trimalchionis*, Seneca's *Apocolocyntosis*, the Pompeian Inscriptions, and Apuleius' *Metamorphoses*.

**530 Medieval Latin Literature (3)** Latin poetry and prose from the 4th to the 17th centuries, with emphasis on the acquisition of good reading knowledge of medieval Latin in different periods and styles.

**531 Latin Epigraphy (3)** Latin inscriptions from the earliest period to the 8th century A.D. A study of the development of the Latin language.

**535 Seminar in Interpretation of Latin Literature (3)** Study of various modern approaches to Latin literature. Analysis of selected passages or themes from selected authors.

**536 Literary Criticism in Antiquity (3)** Study of selected authors or works with reference to both ancient and modern (e.g., Horace and Quintilian) criticism and interpretation.

## SPANISH

Symbol: SPA

**510 Advanced Spanish Phonetics (3)** Theoretical and practical approach to phonology,

phonetics, and phonetic transcriptions. Regional and dialectal variations.

**511 Romance Philology (Spanish) (3)** The development of Old Spanish from Vulgar Latin and Protoromance, with analysis of Spanish phonology, morphology, and syntax. Readings in Old Spanish.

**512 Advanced Spanish Grammar and Stylistics (3)** An informal rapid review of Spanish grammar, with emphasis on problems fundamental to the American classroom. Exercises include idiomatic expression, various levels of style, and translation.

**513 Advanced Oral Spanish (3)** An intensive course for teachers and professionals seeking improvement in oral Spanish. Emphasis on vocabulary and idiom acquisition via discussions, readings, and reports.

**514 Spanish Civilization (3)** Major philosophical and artistic contributions of the Hispanic world to Western civilization. Spain's social and economic institutions, and the character of her people as reflected in the arts.

**520 Cervantes (3)** Life and works of Miguel Cervantes Saavedra: *Novelas ejemplares*, *Ocho comedias y ocho entremeses*, *La Numancia*, *La Galatea*, all of which lead to the study of the meaning, philosophy, and influence of *Don Quixote*.

**521 Juan Ruiz, Arcipreste de Hita (3)** The *Libro de Buen Amor* as a major work in Spain's poetic development.

**522 Lope de Vega (3)** The Spanish *comedia* viewed as an expression of the Spanish people. The popular and national elements of this theater. Lope de Vega as the chief innovator and leading figure of the first half of the Golden Age.

**523 Galdos (3)** Benito Perez Galdos: his novels of social reform, enlightenment, and conversion.

**524 Valera (3)** Juan Valera's psychological novels, set in 19th century Andalusia.

**525 Unamuno (3)** The philosophical ideas of Unamuno studied in his critical essays, plays, and novels.

**530 Spanish Comedia of the Golden Age (3)** Survey of the *comedia* before Lope de Vega; the contributions of Lope de Vega; Tirso de Molina and Ruiz de Alarcon; the Baroque theater of Pedro Calderon de la Barca.

**532 The Picaresque Novel (3)** The picaresque novel as an indigenous creation of Spain; *Lazarillo de Tormes*, *Guzman de Alfarache*, *Vida del Buscon*; the picaresque novel as a tradition in Spain and an influence in other literatures.

**533 The Generation of 1898 (3)** The revitalizing forces which took hold in the late 19th century

and a study of the works of Unamuno, Azorin, Menendez Pidal, Pio Baroja, Valle Inclan, Benavente, Martinez Sierra, and Ruben Dario.

**534 Spanish Lyric Poetry (3)** Spanish lyric poetry, with emphasis on early forms, the Renaissance Italianate forms, and the blossoming of lyric poetry in the 19th and 20th centuries.

**540 Medieval Spanish Literature (3)** The *mester de juglaria* and the *Poema del Cid*; early related epics and the *mester de clerecia*; Spain's early historical chronicles. Beginnings of the Spanish theater.

**542 Spanish Romanticism (3)** The Spanish Romantics and *costumbristas*: Duque de Rivas, Espronceda, Gomez de Avellaneda, Becquer, Larra, Mesonero Romanos. The dramatic novels of Pardo Bazan, Palacio Valdes, Clarin, and Galdos.

**543 Contemporary Spanish Theater (3)** The "Ibsenite" and social dramas of the late 19th century represented by the plays of Lopez de Ayala, Jose Echegaray, and Galdos. The transition period headed by Martinez Sierra and the brothers Quintero. Spain's modernistic drama exemplified by Federico Garcia Lorca and Alejandro Casona.

**544 Masterpieces and Movements in Spanish Literature (3)** A seminar on the development of Spanish thought and artistic expression through selected masterpieces of literature and art.

**545 The Latin American Novel (3)** The development of the novel in Latin America. The colonial period, the period of independence, the romantic period; realism, modernism, *criollismo*, and naturalism.

**546 The Black in Spanish American Literature (3)** The characterization of blacks in Spanish American literature and the political and social context of their portrayal.

**556 Seminar I (3)**

**557 Seminar II (3)**

## ADDITIONAL LANGUAGE COURSES

**LAN 580 Seminar in Puerto Rican Language and Culture (3)** A study of the language and culture of Puerto Rico and the Puerto Ricans. Geography, history, immigration and emigration. Puerto Rican dialect and literature. Emphasis on the Mid-Atlantic Puerto Rican community. *Prerequisite*: a reading knowledge of Spanish.

**LAN 580 Seminar on the Teaching of Reading to Non-English Speakers (3)** A study of language acquisition and the reading process in the person learning English as a Second Language. Selected techniques, placement and materials.

## Geography—See Government and Planning

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# Geology and Astronomy

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Dr. Ehleiter, *Chairperson*

Dr. Greenberg, *Coordinator of Graduate Studies*

## PROFESSORS

Seymour S. Greenberg, Ph.D., *Indiana University*

George F. Reed, Ed.D., *University of Pennsylvania*

Paul R. Widick, Ed.D., *Temple University*

## ASSOCIATE PROFESSORS

Louis A. Casciato, M.S., *Villanova University*

John E. Ehleiter, Ed.D., *Pennsylvania State Univ.*

Robert C. Hannum, M.S., *University of Pittsburgh*

Hubert E. Harber, M.A.T., *Brown University*

Allen H. Johnson, Ph.D., *Case Western Reserve University*

## ASSISTANT PROFESSOR

Sandra F. Pritchard, M.Ed., *West Chester State College*

## ADJUNCT PROFESSOR

Arthur R. Smith, Ed.D., *University of Pennsylvania*

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The Department of Geology and Astronomy, in cooperation with the Departments of Chemistry and Physics, offers a program leading to the Master of Arts degree in physical science. See *Physical Science Program*.

## COURSE DESCRIPTIONS

Geology and Astronomy

Symbol: ESS

**502 Modern Trends in Teaching Earth and Space Science (3)** Recent materials and techniques in secondary school earth and space science.

**503 Intermediate Mineralogy (3)** How the petrographic microscope, x-ray diffraction, and the electron microscope are used to identify minerals.

**505 Geology of the Solar System (3)** The geology, origin, and properties of planets, comets, asteroids, moons, and meteorites and planetary exploration. PREREQ: one introductory course in astronomy and one in geology.

**508 Petroleum Geology (3)** The characteristics of geologic origin and occurrence, migration, and accumulation of petroleum. Also includes a study of reservoir fluids, traps and dynamics and investigation of exploration methods. PREREQ: Physical Geology.

**510 Principles of Physical Geology (3)** Composition of the earth (minerals and rocks) and earth processes (weathering, erosion, metamorphism, volcanism, diastrophism).

**511 Geophysics (3)** Methods and techniques of physics applied to interpreting the internal structure and composition of the earth. PREREQ: Physical Geology.

**512 Historical Geology (3)** Geologic history of the earth and the evidence for this history. Examination of fossils and geologic maps.

**513 Principles of Geochemistry (3)** Migration and distribution of the chemical elements within the earth; chemistry of the lithosphere, hydrosphere, and biosphere, and biosphere; chemical changes throughout earth history; the geochemical cycle.

**514 Mineralogy (3)** Properties, identification, occurrence, and crystallography of the more important minerals. Fundamentals of mineral composition and structure.

**515 Petrology (3)** Origin, classification, and identification of rocks. Field and hand specimen examination.

**516 Structural Geology (3)** Sequential development of the structural features of the earth; the forces involved. PREREQ: Physical and Historical geology.

**517 Sedimentation and Stratigraphy (4)** Development of the relative geologic time and methods

and techniques for the description and evaluation of the physical, chemical, and biologic environment existing at the time of formation of stratified rock. PREREQ: 512, 510

**519 Field Geology (1-3)** Practical experience in techniques and tools of the field geologist. PREREQ: an introductory geology course.

**520 Geology of the Northwest National Parks (4)** This course includes a field trip to the national parks in the states of South Dakota, Wyoming, Montana, Idaho, northern Utah and Colorado. The purpose of the course is to look at the geologic features of the National Parks in these states, and to develop an appreciation of the geology and geologic history of the region. PREREQ: Physical or Historical Geology.

**521 Geology of the Southwest National Parks (4)** The course includes a field trip to the National Parks in the states of New Mexico, Arizona, southern Utah and Colorado. The purpose of the course is to look at the geologic features of the National Parks in these states, and to develop an appreciation of the geology and geologic history of the region. PREREQ: Physical or Historical Geology.

**522 Economic Geology (3)** The geologic origin, accumulation, and distribution of metalliferous economic mineral deposits. Also investigates exploration methods. PREREQ: Physical Geology.

**523 General Geologic Field Studies of Southeastern Pennsylvania (3)** Occurrence, relationships, and geologic history of the rocks, minerals, and soils of this area, studied at representative locations.

**524 History of Geology (1)** Outstanding individuals and their contributions to geology.

**527 Electron Microscopy I (3)** A one-semester lecture/laboratory course in theory operation and applications of electron beam technology in scientific research. Course scheduled on student-demand basis (CHE 527)

**528 Engineering Geology (3)** The application of geological factors into the planning and design of engineered construction. PREREQ: Physical Geology.

**529 Electron Microscopy II (3)** A one-semester lecture/laboratory course in advanced theories operation and applications of electron microscopy in scientific research. Emphasis on individual projects. PREREQ: CHE/ESS 527. Course scheduled on student-demand.

**530 Principles of Oceanography (3)** Geology of the ocean floor, water movements, chemical characteristics of sea water, vertical and horizontal distribution of plants and animals. Brief history of oceanography.

**533 Introduction to Fossils (3)** Identification

and study of common fossils in order to understand their life processes and geologic significance.

**536 Environmental Geology (3)** The application of geological information to human problems encountered in the physical environment such as flooding, earthquakes, volcanic activity, hydrology, and land use. PREREQ: Physical Geology.

**537 Groundwater Geology (3)** The study of subsurface water, its total volume, and availability, and the relationship between surface and subsurface waters.

**540 Introduction to Meteorology (3)** Composition and properties of the atmosphere and principles that influence weather conditions.

**550 General Astronomy (3)** Motions of bodies in the solar system; astronomical coordinates; measurement of time; use of telescopes.

**551 Stellar Astronomy (3)** Properties of stars; unusual stars, interstellar matter, and stellar evolution; distribution and motions of the home and other galaxies. PREREQ: any general descriptive astronomy course.

**553 Nautical Astronomy (Celestial Navigation) (3)** A study of the technical skills of celestial navigation covering such topics as celestial coordinates, principles of time, and the navigational triangle, lines of position and star identification. PREREQ: any algebra and trigonometry course.

**554 Archaeoastronomy (3)** To study the ancient astronomical skills of the world including those of the Babylonians, Egyptians, Greeks, Chinese, Maya, Incas, Aztecs and the North American Indians. PREREQ: any descriptive astronomy course.

**562 History of Astronomy (3)** The development of astronomical theories from Greek times until the Twentieth Century. PREREQ: ESS 111.

**580 Astronomy in England (3)** The development of astronomical theories and equipment in England from prehistoric times until 20th century. PREREQ: An introductory course in astronomy and permission of instructor. Offered only in summer.

**581 Geology in England (3)** The major rocks, minerals and fossils of England and how they are used in the development of geologic principles. PREREQ: An introductory course in geology and permission of instructor. Offered only in summer.

**591 Independent Study (1-3)** An investigation by a student. PREREQ: permission of department.

**SCI522 Philosophy of Science (see PHI522)**  
Any of the following dual-level courses (but not

more than 6 semester hours of credit) may be taken for graduate credit toward the degree:

ESS555 Intermediate Astronomy

ESS565 Observatory Principles

ESS576 Introduction to the Planetarium

ESS590 Fundamentals of Soils

(all are 3-credit courses)

*See also Marine Science*

*See also Science Education*

## Science Education

### COURSE DESCRIPTION

#### SCIENCE EDUCATION

Symbol: SCE

**500 Modern Trends in Science Education (3)** Introduction to current research in science education; a critical review of the literature. Required for M.A. in Physical Science.

**510 Workshop in Secondary School Curricula (3)** Study of one of the commonly used science programs for secondary schools. The selected program is announced in advance.

**595 Elementary School Science Instruction (3)**

A course to improve the science content backgrounds of elementary-school teachers and administrators.

**PH5502 Modern Trends in Teaching Physical Science (2)** Materials and techniques in secondary school physical science. Required for M.A. in Physical Science.

### SCIENCE OFFERINGS DESIGNED FOR ELEMENTARY SCHOOL TEACHERS

**PH5571 Physics for the Elementary Teacher**

**SCE595 Elementary School Science Instruction**

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# Government and Planning

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Mr. Bielski, *Chairperson*

Mr. Burns, *Assistant Chairperson*

Mr. Bielski, *Coordinator of Graduate Studies: Geography and Planning*

Dr. Milne, *Coordinator of Graduate Studies: Government and Public Administration*

## GEOGRAPHERS

### ASSOCIATE PROFESSORS

F. Robert Bielski, M.A., *University of Illinois; A.I.C.P., American Planning Association*

Charles W. Grassel, M.S., *University of Pennsylvania*

William J. Rampon, M.A., *University of Oklahoma*

Arlene C. Rengert, Ph.D., *University of Pennsylvania*

John C. Tachovsky, Ph.D., *University of Cincinnati*

### ASSISTANT PROFESSOR

Wesley W. Thomas, Ph.D., *University of Cincinnati*

## POLITICAL SCIENTISTS

### PROFESSORS

Thomas J. Brady, J.D., *Temple University*

Charles G. Mayo, Ph.D., *University of Southern California*

James S. Milne, Ph.D., *Temple University*

John C. Shea, Ph.D., *University of Pittsburgh*

### ASSOCIATE PROFESSORS

William F. Burns, M.A., *Case Western Reserve University*

A. Wayne Burton, M.A., *University of Pennsylvania*

David S. Eldredge, A.M.T., *Harvard University*

Lawrence V. Iacono, M.Ed., *West Chester State College*

Robert J. Marbach, Ph.D., *Temple University*

### ASSISTANT PROFESSORS

Bhim Sandhu, Ph.D., *University of Missouri*

James G. Smith, Ph.D., *Indiana University*

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## MASTER OF ARTS IN SOCIAL SCIENCE: Concentrations in Political Science.

The Department of Government and Planning offers a Master of Arts in social sciences with a concentration in political science. This concentration is highly appropriate for persons active in teaching, government, politics, commerce or industry, as well as for those who wish to enrich their cultural background.

## MASTER OF SCIENCE IN ADMINISTRATION: Concentrations in Political Science and Urban and Regional Planning.

The Department of Government and Planning participates in an interdisciplinary degree program leading to a Master of Science in Administration with concentrations in political science and urban and regional planning. See ADMINISTRATION page 35.

The Department also offers a Master of Arts in geography. This program is designed to develop skills and expertise useful in solving society's problems in such areas as land planning and management, conservation of resources, and location of commerce and industry.

## MASTER OF ARTS IN GEOGRAPHY

### 33 Semester Hours

1. Required Courses 15 s.h.  
GEO 508, 506, 505, 581 and 585
2. Thesis 6 s.h.  
GEO 610
3. Elective Courses 12 s.h.  
Selected under advisement from Geography, Geology, Mathematics, Statistics, or Computer Science.

## MASTER OF ARTS IN SOCIAL SCIENCE

### Concentration: Political Science

### 30 Semester Hours

1. Research Area 6 s.h.  
PSC 500—Methods and Materials of Research in Political Science and  
PSC 600—Research Report required.
2. Political Science/Public Administration Electives 9-12 s.h.  
Selected under advisement
3. Electives from offerings of two of the following programs: 12 s.h.  
Anthropology, Criminal Justice, Geography, History, Planning, Psychology, Social Work, Sociology.
4. Cognate area 0-3 s.h.  
Elected from any program in the college

## COURSE DESCRIPTIONS

### GEOGRAPHY

#### Symbol: GEO

**505 Map Design (3)** Map design methods and techniques. Presentation of statistical data in map form. PREREQ: introductory cartography or consent of instructor.

**506 Environmental Hazards and Site Planning (3)** This course will be concerned with aspects of the physical environment that must be considered in the planning for any site for urban, industrial, or suburban activity. The main thrust will be hazard-zone planning; either the avoidance of risks or minimization of risks from natural hazards or man-made hazards in planning such activities.

**507 Maps and Aerial Photographs in the Planning Process (3)** Designed to improve map and photo interpretation skills. Emphasis on increased understanding of U.S.G.S. quadrangles, and special-purpose statistical maps.

**508 Research Design and Analysis (also CRJ 508) (3)** Emphasis upon social-research processes: problem identification; data collection and use; application of statistical procedures; and computer techniques; hypothesis testing and problem resolution in social planning and decision-making.

**509 Quantitative Methods in Planning (3)**

Fundamental statistics, methods, and techniques applied to urban and regional planning research and decision-making.

**521 Suburbanization and Land Development (3)** Component systems and functional operations of urban/suburban communities, including ecological and demographic aspects. Emphasis upon organization, development, change, and problems of communities.

**524 Population Processes (3)** Characteristics and distribution of world populations are studied. The dynamic processes of population change (mortality, fertility and migration) are examined.

**525 Urban and Regional Planning (3)** Application of community-planning theories and methods to designated urban and regional systems.

**526 Metropolitan Systems and Problems (3)** Urbanization processes and problems; urban systems in the expanding metropolitan and regional setting; present and proposed efforts to solve urban problems.

**527 Planning Law and Organization (3)** An insight into the role of federal, state and local governments in instituting, executing, and judicially-reviewing laws and regulations pertaining to land uses. Special emphasis is given to legal organization of the planning process particularly at the local level. Major land use court-cases are presented and reviewed.

**529 Geographic Influences in World History (3)** Effect of geographic factors upon selected movements, occurrences, eras, and cultural groups in modern world history.

**530 Demographic Analysis (3)** A course to develop skills in basic demographic research, emphasizing the uses and limitations of data sources, and the understanding and interpretation of specific analytic methods for population analysis.

**540 Geography of the United States (3)** A regional study of the United States, emphasizing relationships between physical geography and human economic and political responses to environmental circumstances.

**544 Geography of Latin America (3)** Regional geography of Latin America: its physical base, settlement, agriculture, mining and manufacturing. Inter-American relations are considered.

**545 Geography of Europe (excluding the U.S.S.R.) (3)** Regional study of Europe. Influences of environmental factors, such as climate, landforms, and soils on the economic, social, and political condition of European nations.

**546 Geography of Soviet Union (3)** European and Asiatic U.S.S.R. and its satellite nations. Elements of the environment and regional divisions in relation to resource base and economic/political objectives.

**571 Conservation Workshop (3)** An appraisal of resource conservation and resource management practices in the context of regional planning.

**572 Seminar in Resource Management (3)** Research problems in resource management, done on an individual-student, or team-study basis.

**581 Seminar in Modern Philosophy of Geography (3)** Modern geographic thought with emphasis on contributions of American geographers and their most recent views.

**585 Geography Field Methods (3)** An advanced field course which includes urban and land-use studies. Utilization of field methods, mapping, and data collection for geographical reports.

**590 Independent Studies in Geography (3)** Research projects, reports, readings in geography. PREREQ: approval of discipline graduate coordinator.

**610 Thesis (3 or 6)** A thesis is developed on a research problem for which the student develops a theory, proposition or hypothesis, and investigates available information on the subject.

## POLITICAL SCIENCE

Symbol: PSC

**500 Methods and Materials of Research in Political Science (3)** Logic of scientific methodology, research design construction. Stress on hypothesis development and testing, data collection, measurement problems, theory application.

**515 Women in Politics (3)** The role of women in politics is surveyed. Considerations include the relationship between the sexes as it impacts politics.

**525 The American Presidency (3)** Analysis of the presidency, stressing its evolution into a modern institution and the contemporary behavioral aspects of the office. Considers personality, power and campaign strategy in conjunction with presidential relations with the Executive Branch, Congress, the Courts and the media.

**531 Modern Political Theory (3)** Critical analysis of enduring political problems as seen primarily in the writings of theorists from Machiavelli to the present; basic concepts of political science; theories concerning the proper role of the state in society.

**532 International Relations (3)** Factors which motivate the actions of nations; machinery which members of the nation-state system have evolved for effecting their various policies. Methods of diplomacy, international law, international organization.

**533 Congressional Politics (3)** The politics of and the legislative process in Congress. Includes internal influences on the Congressional performance such as rules, norms and behavior and external influences including the executive and interest groups.

**534 American Political Parties (3)** Patterns, functions and history of the American political party system at national, state and local levels. Theoretical and empirical studies of political interest groups, public opinion, voting behavior.

**540 American Constitutional Law (3)** Evolution of constitutional law through study of the leading decisions of the Supreme Court and their significance for the American governmental system.

**541 Latin-American Culture and Politics (3)** Comparative analysis of contemporary Latin-American systems. Stress of political culture, decision making, ideologies and political processes.

**542 Dynamics of Public Opinion and Political Behavior (3)** The political role and style of masses and elites; uses and abuses of polls, political socialization, voting behavior, campaigning and media. Understanding individual opinion formation (micro) and mass publics (macro).

**544 American Public Policy (3)** Survey of literature; examination of approaches; discussion of concepts and issues in the field of American politics and policy processes.

**548 The Communist Powers (3)** Comparative study of various Communist systems, particularly the U.S.S.R. and China. Elite-mass relationships; role of Marxism-Leninism; party, economic and political structures. Secondary attention to Eastern Europe, Cuba and non-ruling parties.

**549 Politics of Bureaucracy and Administrative Behavior (3)** In-depth examination of the fourth branch of government. Impact of administrative apparatus (bureaucracy) on public policy formulation and implementation in the United States.

**551 The Politics of Non-Western Areas (3)** Problems of nation-building, political participation and elite-mass relationships in the less devel-

oped nations. Latin American, Asian or African nations may be stressed as a case study.

**552 Civil Liberties and Civil Rights (3)** Analysis of constitutional rights and governmental attitudes with respect to civil liberties. Emphasis on case-study method and role playing.

**560 The Politics of Revolution (3)** Synthesis of research, concepts and theories of revolution. Stress on the meaning, causes, phases and ideologies of revolution. Contemporary movements emphasized.

**590 Independent Studies in Political Science (1-3)** Research projects, reports and readings in political science. PREREQ: approval of department chairperson.

**600 Research Report (3)**

**610 Thesis (3)**



# Health

Dr. Mustalish, *Chairperson*

## PROFESSORS

John D. Lemcke, Ed.D., *Temple University*

Robert P. Nye, Ed.D., *Temple University*

## ASSOCIATE PROFESSORS

John L. DeMillion, M.Ed., *University of Pittsburgh*

J. Thomas Fisher, M.S., *University of Illinois*

Phyllis A. Goetz, Ph.D., *University of Maryland*

Dorothy R. Nowack, Ph.D., *University of Maryland*

N. Ruth Reed, M.Ed., *Pennsylvania State University*

John R. Steinmetz, Ed.D., *Temple University*

## ASSISTANT PROFESSORS

Roger W. Mustalish, Ph.D., *University of Minnesota*

Maura J. Sheehan, Sc.D., *University of Pittsburgh*

## ADJUNCT INSTRUCTOR

John P. Maher, M.D., *S.U.N.Y.*

The Department of Health offers degree programs leading to the Master of Education in Health, Master of Science in Health and a concentration in Health Services Administration within the Master of Science in Administration.

The Master of Education enriches academic preparation for teaching in elementary and secondary schools and/or first level employment in the various professions related to health.

The Master of Science is designed primarily to meet individual needs of the graduate student who wishes to pursue graduate work as an aid to upgrading careers in government, industry, research and related health professions. The M.S. is recommended for persons planning for doctoral study.

The Health Services Administration concentration in the Master of Science in Administration Program meets the needs of those persons interested in entering the field of health administration and of those persons presently in health administration interested in upgrading their careers.

**Communication with the Department**

All inquiries and other communications regarding the graduate program in health should be addressed to Dr. Roger Mustalish, Chairperson, Department of Health, School of Health Sciences, West Chester State College, West Chester, Pa. 19380. Phone 215-436-2931.

**MASTER OF SCIENCE PROGRAM**

**Admission to the M.S. Program.**

Applicants must meet the basic requirements of the college, given under Admissions and must present a baccalaureate degree attained in their anticipated major area of health or equivalent preparation in a related field. They must also present the results of the aptitude section of the Graduate Record Examination or the Miller Analogies Test. Normally, minimum test scores for full matriculation will be 450 Math/450 Verbal for the GRE, or 40 for the MAT.

**Admission to the M.S. Degree Candidacy.**

Within the 15 semester hours of pre-candidacy majors in health must complete departmental and concentration core courses with a minimum quality point average for these and all other courses during pre-candidacy of 3.00.

**Requirements for the M.S. Degree.**

- 1. Satisfactory completion of the M.S. curriculum shown below with an overall average of 3.00.
- 2. Satisfactory performance on the written and/or oral comprehensive examinations.
- 3. Oral defense of the thesis.

**CURRICULUM**

- 1. Degree Core 6 s.h.
  - HEA 520 Scientific Bases for Health (3)
  - HEA 531 The Community as a Basis for Health (3)
- 2. Concentration Core 6 s.h.

Students must select one of the concentrations below:

  - A. SCHOOL HEALTH
    - HEA 620 School Health Programs (3)
    - HEA 622 Curriculum and Instruction in Health Education (3)
  - B. PUBLIC HEALTH
    - HEA 530 General Environmental Health (3)
    - HEA 632 Advanced Theory and Application of Health Behavior (3)
  - C. ENVIRONMENTAL HEALTH
    - HEA 455 Environmental Health Seminar (3)
    - HEA 530 General Environmental Health (3)
  - D. GERONTOLOGY
    - HEA 522 Introduction to Gerontology (3)

## HEA 519 Geriatrics (3)

- |                                                                |        |
|----------------------------------------------------------------|--------|
| 3. Concentration Electives                                     | 9 s.h. |
| Selected under advisement                                      |        |
| 4. Additional Degree Requirements                              | 9 s.h. |
| PSY 501 Introductory Statistics for Behavioral Sciences (3) or |        |
| STA 521 Statistics I (3) <i>and</i>                            |        |
| HEA 608 Thesis (3) — proposal                                  |        |
| HEA 610 Thesis (3) — seminar                                   |        |

Students with inadequate preparation in research methodologies must enroll in HPE 600 as part of their concentration electives.

The thesis proposal must be formally approved within the thesis seminar (HEA 608) before the student may register for thesis (HEA 610). **IMPORTANT:** to be considered on active status, the student must continuously register for HEA 608 until the thesis proposal is formally approved, and then for HEA 610 until the thesis is formally completed. Failure to do so will result in the student having to begin the thesis process over again, starting with HEA 608.

## MASTER OF EDUCATION IN HEALTH

### Admission to the M.Ed. Program.

In addition to meeting the basic requirements of the college, given under Admission, applicants must present a baccalaureate degree attained in the field of health, or equivalent preparation in a related field.

### Admission to M.Ed. Degree Candidacy.

Within the 15 semester hours of pre-candidacy, the student must complete departmental and concentration core courses with an average of 3.0.

### Requirements for the M.Ed. Degree.

1. Satisfactory completion of the M.Ed. curriculum shown below, with an overall grade point average of 2.75; 3.0 in the concentration.
2. Satisfactory performance on the written and/or oral comprehensive examination.
3. Successful completion of the research project.

## CURRICULUM

- |                                                                |         |
|----------------------------------------------------------------|---------|
| 1. Degree Core                                                 | 6 s.h.  |
| HEA 520 Scientific Bases for Health (3)                        |         |
| HEA 531 The Community as a Basis for Health (3)                |         |
| 2. Concentration Core                                          | 6 s.h.  |
| Students must select one of the concentrations below:          |         |
| A. SCHOOL HEALTH                                               |         |
| HEA 620 School Health Programs (3)                             |         |
| HEA 622 Curriculum and Instruction in Health Education (3)     |         |
| B. PUBLIC HEALTH                                               |         |
| HEA 530 General Environmental Health (3)                       |         |
| HEA 632 Advanced Theory and Application of Health Behavior (3) |         |
| C. GERONTOLOGY                                                 |         |
| HEA 522 Introduction to Gerontology (3)                        |         |
| HEA 519 Geriatrics (3)                                         |         |
| 3. Concentration Electives                                     | 9 s.h.  |
| Selected under advisement                                      |         |
| 4. Additional Degree Requirements                              | 13 s.h. |
| EDF 510 Educational Foundations (3)                            |         |

- HPE 600 Methods/Materials of Research (3) OR
- EDF 500 Methods/Materials of Research in Education (3)
- PSY 501 Introductory Statistics for Behavioral Sciences (3)
- HEA 606 Research Report I (2)
- HEA 607 Research Report II (2)

The research project consists of two semesters (HEA 606-607) which must be preceded by successful completion of HPE 600, Methods and Materials of Research in Health, Physical Education and Recreation. IMPORTANT: to be considered on active status the student must continuously register for HEA 606, including summer sessions, until this requirement is met; continuous registration is similarly required for HEA 607.

Pending CAPC approval.

**CONCENTRATION IN HEALTH SERVICES ADMINISTRATION—MASTER of ADMINISTRATION**

**Admission to the M.S. Program.**

Applicants must meet the basic requirements of the college, given under admissions, and must present a baccalaureate degree attained in their anticipated major area of health or equivalent preparation in a related field. They must also present the results of the aptitude section of the Graduate Record Examination or the Miller Analogies Test.

**Admission to the M.S. Degree Candidacy.**

Within the 15 semester hours of pre-candidacy, majors in the health administration concentration must complete 3 of the administration core courses and 2 of the health administration core with a minimum quality point average for these courses during pre-candidacy of 2.75.

**Requirements for the M.S. Degree.**

1. Satisfactory completion of the M.S. in Administration curricula shown below with an overall average of 2.75.
2. Satisfactory performance on the written/or oral comprehensive examinations.
3. Successful completion of field research.

**CURRICULUM**

- |                                                                         |         |
|-------------------------------------------------------------------------|---------|
| 1. Administration Core                                                  | 18 s.h. |
| ADM 501 Administrative Theory and Environment (3)                       |         |
| ADM 502 Research and Analysis for Administrators (3)                    |         |
| ADM 503 Accounting for Administration (3)                               |         |
| ADM 504 Communication for Administrators (3)                            |         |
| ADM 505 Organizing Human Resources (3)                                  |         |
| ADM 506 Budgeting and Fiscal Management (3)                             |         |
| 2. Health Administration Core                                           | 9 s.h.  |
| HEA 630 Application of Administration/Management to Health Services (3) |         |
| HEA 631 Health Services and the Law (3)                                 |         |
| HEA 632 Advanced Theories and Application of Health Behavior (3)        |         |
| 3. Health Electives                                                     | 6 s.h.  |
| Select any two from the following:                                      |         |
| HEA 520 Scientific Bases for Health (3)                                 |         |
| HEA 521 Sociological Bases for Health (3)                               |         |
| HEA 522 Gerontology (3)                                                 |         |
| HEA 523 Consumer Education (3)                                          |         |
| HEA 524 Problems in Industrial Health (3)                               |         |
| HEA 530 General Environmental Health (3)                                |         |

- HEA 531 The Community as a Basis for Health (3)  
 HEA 532 Institutional Environmental Health (3)  
 HEA 621 Human Sexuality in a Changing Society (3)  
 HEA 623 Addictive Diseases (3)

4. Additional Degree Requirement

- HEA 611 Field Research (3)

3 s.h.

## COURSE DESCRIPTIONS

### HEALTH

Symbol: HEA

**517 The Aging Consumer (3)** An analysis and discussion of the unique consumer needs of the elderly, particularly as they relate to personal health. Topics will include health insurance, costs of health care and delivery, and maintenance of healthful day-to-day living, among others. Strategies for solving these consumer health problems will be presented.

**518 Applied Gerontology (3)** Design and development of health programs to provide services for the aging population in order to assist them to live as independent members of their community. PREREQ: HEA 517, 519, 522; or permission of instructor.

**519 Geriatrics (3)** A detailed discussion of physical and mental disabilities and diseases which often accompany the aging process. Methods of treatment for these disorders will also be presented.

**520 Scientific Bases for Health (3)** Past and recent scientific developments in selected physiological health problems. Analysis of research findings which contribute to basic content in health education. The practical application of these findings through health behavior.

**521 Sociological Bases for Health (3)** Past and recent scientific developments in selected sociological health problems. Analysis of research findings in the areas of social and mental health; the place of these findings in the basic content in health education and their practical application through group behavior.

**522 Gerontology (3)** In-depth study of the mental, physiological, emotional and social aspects of aging. The role society assigns to the aged. Improving the lot of the aged.

**523 Consumer Education (3)** Consumer related problems of the individual and society. Consumerism, cost and delivery of health services and the effect on individual and societal health. Consumerism and the law.

**524 Problems in Industrial Health (3)** An in depth consideration of the health aspects of work places. Theoretical as well as applied practices will be presented; there will be field trips and a laboratory associated with this course.

**525 Elementary School Health Education (3)** Trends in elementary school health: curricular approaches and emphasis, teaching strategies, motivational techniques, resources, materials, issues, problems and evaluations. PREREQ: background in elementary education.

**526 Life Support Techniques (3)** Advanced methods in cardiopulmonary resuscitation and advances in first aid techniques leading to American Heart Association certificate of "Basic Life Support-CPR." Current methods of personal and group injury management.

**530 General Environmental Health (3)** Methods of promoting health by controlling environmental factors relating to air, water, wastes, housing, radiation, and industrial hygiene.

**531 The Community as a Basis for Health (3)** An analysis of the community with its diverse population, and its response to critical and current health problems. Emphasis will be placed on the need for balance between individual and community needs, rights, and responsibilities.

**532 Institutional Environmental Health (3)** A comprehensive assessment of the environmental health aspects of institutions, including microbiologic considerations, environmental hygiene, safety, general sanitation and administration. Health care facilities as well as correctional institutions and schools will be discussed.

**533 Water Quality and Health (3)** An examination of the physical, chemical and biological characteristics of natural waters and their significance for human health; methods of water treatment and distribution will also be considered.

**535 Health Workshops (1-3)** Selected topics current to the interests and needs of professionals serving in the various health and health-related areas will be studied intensely. Topics for each workshop will be announced prior to the first day of each college session.

**606 Research Project Seminar I (2)** The M.Ed. candidate selects a problem for a research report, reviews the literature, develops procedures, and collects appropriate data. Students are expected to complete the first three chapters of the research report during Seminar I, and will continue to register for this course each semester of summer session until this requirement is met. They then register for Seminar II.

**607 Research Project Seminar II (2)** M.Ed. candidates are expected to complete their research reports in this seminar (see HEA 606). Students are required to continue to register for the seminar each semester until the report is completed.

**608 Thesis Seminar (3)** A course for the M.S. candidate, who selects a topic, reviews the literature, develops procedures, and prepares a proposal acceptable to the thesis committee. Candidates continue to register each semester for the seminar until they have met requirements. They then register for HEA 610.

**609 Independent Study and Special Projects. (1-3)** Research projects, seminar papers, reports of special conferences, and reading in health. PREREQ: administrative approval.

**610 Thesis (3)** Undertaken upon completion of HEA 608. If the thesis is not completed in the first semester the student must register the next semester and thereafter in 608 until the thesis has been accepted by the committee.

**611 Field Research (3)** A research project for students in the Health Services Administration concentration. Students must continuously register for HEA 611 until the project is formally completed. All core coursework should be completed before beginning the research project.

**620 School Health Problems (3)** In-service training in school health problems, using a variety of materials, methods, and resources.

**621 Human Sexuality in a Changing Society (3)** Problems of sexual organs such as dysfunction. Changing sexual attitudes and behavior of individuals, families, and society. Commercial sex, misinformation, sex and the law, population control. Sex education for home and school.

**622 Principles of Curriculum and Instruction for Health Education (3)** Alternatives for viewing and reviewing instructional programs. Existing rationales. Conception of curricula. Developing effective curriculum.

**623 Addictive Diseases (3)** Designed to assist the student and in-service teacher in developing knowledge and insight into the addictive diseases (alcohol, drugs, tobacco). Utilization of resource personnel.

**630 Application of Administration/Management to Health Services (3)** Application of the administration and management techniques ac-

quired in the administrative core to the problems involved in Health Administration/Management. Topics will include Federal, State, and local health agencies, health care centers, organization principles, personnel factors, public relations and fiscal management. PRE: ADM 502, 503, 506.

**631 Health Services and the Law (3)** An analysis of the basic legal concepts and major legal issues of importance to and directly affecting the health services administrator; topics include legal frameworks of health organizations and health practitioners; administrative policy, contracts, consent, patient's rights, legal death, insurance, liability and research.

**632 Advanced Theories and Application of Health Behavior (3)** An advanced course on current theories in health behavior and the application of these theories to management methods in the health care field. Topics include trends in health behavior, health concerns, analysis of the decision-making process and factors affecting health behavior.

The Health Department has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and Department Chairperson:

**410 Mental Health (3)** Designed to aid persons in improving their understanding of themselves and others. Emphasis on ways to recognize mental health problems.

**435 Health Workshop (1-6)** Special workshops on contemporary health problems and issues. Topics announced at time of offering.

**451 Toxic Substances (3)** An investigation of the health problems caused by toxic substances primarily in the workplace and also in the general environment. Industrial hygiene methods of using technology to evaluate and control toxic substances will be discussed and demonstrated.

**452 Industrial Hygiene (3)** A study of the anticipation, recognition, evaluation and control of health hazards in the work environment.

**455 Environmental Health Seminar (3)** In depth investigations and discussions on topics of particular concern or significance to the environmental health field. Topics will be varied from year to year.

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# History



Dr. Schalck, *Chairperson*

Dr. Burgwyn, *Coordinator of Graduate Studies*

## PROFESSORS

Robert E. Carlson, Ph.D., *University of Pittsburgh*

Florence Joseph Crowley, Ph.D., *University of Florida*

Claude R. Foster, Ph.D., *University of Pennsylvania*

Frank Fox, Ph.D., *University of Delaware*

Clifford H. Harding, Ph.D., *New York University*

Patricia C. Johnson, Ph.D., *University of Rochester*

Donn C. Riley, Ph.D., *St. Louis University*

Harry G. Schalck, Ph.D., *Clark University*

Anne Sessa, Ph.D., *University of Delaware*

Norbert C. Soldon, Ph.D., *University of Delaware*

Charles H. Stuart, Ph.D., *Boston University*

Jane B. Swan, Ph.D., *University of Pennsylvania*

John J. Turner, Jr., Ph.D., *Columbia University*

Richard J. Webster, Ph.D., *University of Pennsylvania*

Robert J. Young, Ph.D., *University of Pennsylvania*

## ASSOCIATE PROFESSORS

H. James Burgwyn, Ph.D., *University of Pittsburgh*

Raymond A. Doyle, M.S., *West Chester State College*

Thomas J. Heston, Ph.D., *Case Western Reserve University*

W. Bennett Peters, Ph.D., *University of California at Santa Barbara*

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The Department of History offers three degrees; the Master of Arts in History; the Master of Arts in Social Science with a concentration in history; and, in cooperation with the School of Education, the Master of Education in Social Science with a concentration in history.

The Master of Arts degree in history provides a sound foundation for study leading to the doctorate in history as well as a background of knowledge for teachers in secondary schools and institutions of higher learning and for persons employed in industry and government. Study for the degree also enriches the cultural background of students and helps them to evaluate present events in light of the past.

The M.A. in History may be achieved by completing either a thesis or non-thesis program. The candidate in the thesis program must pass a reading-proficiency test in either French or German. The candidate, with the department chairperson's approval, may substitute another language or may demonstrate competency in statistics. In the non-thesis program, the candidate does not fulfill the language requirement but takes two seminars and presents a research paper in each. Students in the Master of Arts in History (thesis or non-thesis option) are advised by the Department of History.

The Master of Arts in social science is particularly relevant for teachers who wish to strengthen their subject-matter knowledge in more than one academic discipline. The program is also appropriate for persons employed in government or industry or for those who wish to enrich their cultural background. Those who select history as their concentration in this interdisciplinary program are advised by the Department of History.

The Master of Education in Social Science (history concentration) provides in-service teachers with additional professional-education courses as well as with an opportunity to enlarge

their understanding of the historical past. Those who select history as their concentration in this program are advised by the Department of History.

In all three programs the Graduate Record Examinations (morning and afternoon) are required for admission to degree candidacy, which should occur upon completion of from 12 to 18 semester hours of graduate work.

Degree candidates must achieve at least a raw score of 1000 in the combined verbal and advanced history portions of the Graduate Record Examinations or a score of no less than the 40th percentile in the advanced history portion.

The Department of History office is located in 506, Main Hall—phone (215) 436-2201; the graduate coordinator's office is 404, Main Hall—phone (215) 436-2327.

MASTER OF ARTS IN HISTORY

30 Semester Hours

THESIS OPTION

- |                                                                                         |         |
|-----------------------------------------------------------------------------------------|---------|
| 1. Major area of concentration (American or European)<br>(must include two seminars)    | 12 s.h. |
| 2. Minor area of concentration (either the area not chosen<br>above or the Third World) | 6 s.h.  |
| 3. HIS 500 (Methods and Materials of Research)                                          | 3 s.h.  |
| 4. HIS 691 (Thesis)                                                                     | 6 s.h.  |
| 5. Elective                                                                             | 3 s.h.  |

NON-THESIS OPTION

- |                                                                                         |         |
|-----------------------------------------------------------------------------------------|---------|
| 1. Major area of concentration (American or European)<br>(must include two seminars)    | 18 s.h. |
| 2. Minor area of concentration (either the area not chosen above<br>or the Third World) | 9 s.h.  |
| 3. HIS 500 (Methods and Materials of Research)                                          | 3 s.h.  |

MASTER OF ARTS IN SOCIAL SCIENCE

Concentration: History

30 Semester Hours

- |                                                                                                |         |
|------------------------------------------------------------------------------------------------|---------|
| 1. History courses (under advisement)                                                          | 9 s.h.  |
| 2. Social Science courses (from at least two other social science<br>disciplines than history) | 12 s.h. |
| 3. HIS 500 (Methods and Materials of Research)                                                 | 3 s.h.  |
| 4. HIS 650, 651, or 652 (Seminar)                                                              | 3 s.h.  |
| 5. Elective (from any department in the college)                                               | 3 s.h.  |

MASTER OF EDUCATION IN SOCIAL SCIENCE

Concentration: History

34 Semester Hours

- |                                                          |            |
|----------------------------------------------------------|------------|
| 1. Professional education requirements (See pages 60-61) | 11-12 s.h. |
| 2. History courses (under advisement)                    | 15-18 s.h. |
| 3. HIS 500 (Methods and Materials of Research)           | 3 s.h.     |
| 4. HIS 650, 651, or 652 (Seminar)                        | 3 s.h.     |
| 5. Electives (Professional education or academic)        | 0-4 s.h.   |

The Department of History has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or the Department's Chairperson: HIS 406, 420, 422, 423, 425, 426, 427, 435, 447, 451, 455, 562, 474.

## COURSE DESCRIPTIONS

See also Social Science (SSC) following History

Symbol: HIS

**500 Methods and Materials of Research in History (3)** Basic techniques and procedures in research; major types of research and methods for locating, evaluating, and interpreting evidence. The student develops a tentative outline, bibliography, and summary of an investigative procedure. Required of all degree-program students.

**501 Studies in the History and Culture of South Asia (3)** The Indian sub-continent's dominant political, cultural, and economic institutions. Features which contribute to an understanding of modern India and Pakistan.

**505 Studies in the History and Culture of East Asia (3)** The traditional basis for modern Chinese, Japanese, and Korean society. The interaction between European and Asian cultures and resulting changes in East Asia.

**509 Contemporary History of the Middle East (3)** Recent history of major Middle Eastern societies; Iran and the oil situation; Israel and the Palestine question; conflicting cultures.

**510 History of Pennsylvania (3)** The founding and development of Pennsylvania from its colonial beginnings to the present, with emphasis on the relation of the past to the present.

**511 Studies in the History and Culture of Emerging Africa (3)** Emergence of modern African nationalism against the background of traditional African society and the legacy of European colonialism.

**512 Independent Black Africa (3)** The post-war experience of Sub-Saharan Africa viewed in the light of the end of European colonial administration and the growth of an independent African society.

**515 The Cultural and Intellectual History of Latin America (3)** Pre-Columbian art and thought, scholasticism, mercantilism, the Great Debate, Baroque architecture, Enlightenment, conservatism, liberalism, Romanticism, Modernism, Positivism, Jose Enrique Rodo, Aprismo, Mexican muralists, novel of social protest, existentialism, and music. Lineaments of the Latin-American mind.

**516 Modern Mexico (3)** Mexico during the 19th- and 20th-centuries; stress upon the dramatic transformation of Mexico from backwardness to modernity in the short period of a century and a half.

**530 Problems in Medieval Civilization (3)** Rise and fall of the Byzantine Empire, conquests of the Arabs and Turks, the crusades for the recovery of the Holy Land; the religious orders and the universal aspirations of the Papacy.

**531 The Renaissance (3)** Political, social, and cultural transitions in Italy and Northern Europe, 1350-1550.

**532 The Reformation (3)** Major and minor Protestant leaders and their movements; effects on the evolving nation-states; the Church of Rome's response; Wars of Religion and Treaty of Westphalia; the Scientific Revolution.

**533 Dynastic Europe: 1648-1789 (3)** The absolute dynastic monarchy as best exemplified by France, Prussia and Russia; the middle class challenge as typified by the English experience; the Enlightenment and the New Science; capitalism; colonialism, and wars of empire.

**534 The French Revolution and the Napoleonic Era: 1789-1815 (3)** Causes of the French Revolution, failure of absolutism, Reign of Terror, the Directory; rise of Napoleon Bonaparte and his contribution to the Revolution; the Empire—its rise and collapse; Congress of Vienna.

**535 Nationalism and Democracy: 1815-1914 (3)** Aftermath and effect of the French Revolutionary era; events brought on by the growth of nationalism and democracy; development of the industrial revolution. Roots of the First World War.

**536 Europe Since 1914 (3)** Twentieth century Europe, with emphasis on causes of World War I; Europe between World War I and World War II; problems of contemporary Europe.

**540 The Evolution of Modern Russia (3)** A cultural approach to the historical development of Russia from the foundation of Kiev to the Revolution of 1917. Emphasis is on Russia's political and aesthetic uniqueness.

**541 Tudor and Stuart England (3)** Social, cultural, religious, political, and economic developments during the Tudor and Stuart reigns; building a strong Tudor monarchy; the English Reformation; Stuart Absolutism; Puritan Revolution, Civil War and the Commonwealth; the beginning of Empire; the Restoration, Glorious Revolution, and growth of English constitutionalism.

**550 Colonial America: 1607-1763 (3)** Development of the 13 mainland colonies of Anglo-America from their settlement to mid-18th century. Emphasis on a conceptual analysis of specific events and problems.

**551 Revolutionary America: 1763-1789 (3)** American development from the mid-18th century to the framing of the Constitution, with emphasis on the causes of the American Revolution and the evolution of American institutions and ideas throughout the period.

**553 The Rise of the New Nation: 1789-1850 (3)** A historiographical approach involving interpretations of the foundations and development of the Federalist Party, emergence of Jeffersonian Democracy, evolution of Jacksonian Democracy, and events of the Middle Period leading to the decade of controversy.

**554 Civil War and Reconstruction: 1850-1877 (3)** The War and its aftermath as the great watershed of United States national history. Emphasis on the conflicting interpretations of the causes, nature, and effects of the Civil War.

**555 Emergence of Modern America: 1876-1923 (3)** Rise of industry, labor, immigration, and new cultural patterns; emergence of new political alignments, rise of imperialism, development of liberalism and reform; America's struggle for neutrality and her participation in World War I.

**556 America Since 1919 (3)** The impact of urbanization and industrialization upon society, politics, and economics; the problems of wars—declared and undeclared—and the various policies for peace.

**557 Problems in American Constitutional Development (3)** Selected problems in the development of American constitutional government. The progressive adaptation of the law to a changing social and economic order. Conflicts such as nationalism versus states' rights and vested rights versus police power.

**558 Recent American Diplomatic History (3)** American foreign policy in Europe, Asia, Latin America and the Middle East from 1945 to the present. Objectives sought by the United States and the political, military, economic, and social policies pursued; role of the United States in the future of underdeveloped countries.

**559 American Urban History (3)** Research methods and approaches for studying the history of cities in America. Emphasis on quantitative analysis, including studies of urban population, social mobility, and voting patterns.

**560 American Labor Since 1865 (3)** American laborers and labor organizations in the past hundred years; industrialization, immigration, and labor; women, children, and minorities in labor organizations; political parties, radical groups, and violence as factors in labor history; economic conditions and labor; Big Labor.

**561 The Indian in America's Past (3)** The dispossession of the American Indian; land seizures, wars, and treaties, cultural contact, customs, mores, economic and religious life of the Indian; assimilation and preservation of Indian culture.

**562 Technology and American Life (3)** Promises and practices of American life in response to the interaction of American forms, values and scientific-technological change from the colonial period to the present.

**650 Seminar in American History (3)** Selected problems in American history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in American history.

**651 Seminar in European History (3)** Selected problems in European history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in European history.

**652 Seminar in History of the Non-Western World (3)** Selected problems in non-western world history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in non-western world history.

**660 Field Studies in History (3-6)** A fully supervised learning experience, usually a tour, designed to expose students to the culture, artifacts, and research facilities of a given country or area.

**690 Independent Studies in History (1-3)** Research projects, reports, and readings in history. PREREQ: approval of department chairperson.

**691 Thesis (3-6)**

## SOCIAL SCIENCE

**SSC 502 Methods and Materials for Teaching Social Studies (3-6)** Current practices and procedures; organization and planning; the use of classroom, library, and curriculum materials; testing, measurements, and evaluation; bibliographical sources for both teachers and students.

**SSC 580 Ethnic Cultures Institute (3)** An interdisciplinary offering, the institute considers the contributions of ethnic groups to the culture of the United States. Designed primarily for teachers, community action personnel, and students who wish to increase knowledge and skills for developing meaningful intergroup relationships and improving classroom instruction. Educators and community leaders take part.

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# Instructional Media Education

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Dr. Spiecker, *Chairperson and Coordinator of Graduate Studies*

## PROFESSOR

Richard L. Strayer, Ed.D., *Temple University*

## ASSOCIATE PROFESSORS

David L. Redmond, M.S., *Syracuse University*

Joseph M. Spiecker, Ed.D., *Nova University*

## ASSISTANT PROFESSOR

Jay P. Steinmetz, M.Ed., *West Chester State College*

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The Department of Instructional Media offers three programs in educational media.

## MASTER OF EDUCATION

This degree is offered to candidates who possess an Instructional Level I or Instructional Level II certificate, and prepares them for positions as instructional media coordinators in elementary and secondary schools and for instructional and administrative positions in colleges.

## MASTER OF SCIENCE

This is a program designed for the many fields outside education where highly skilled personnel in instructional media are in growing demand. These fields encompass business, industry, religious organizations, and government. Unlike the M.Ed. program, the M.S. program does not require an undergraduate background in teaching; nor does it lead to certification.

### Instructional Media Specialist Certification

Certification, which may be earned by completing the Master of Education degree program, may also be achieved with the completion of 24 credits in instructional media in a non-degree program. The certificate is valid for obtaining positions in instructional media in the public schools of Pennsylvania.

## MASTER OF EDUCATION IN INSTRUCTIONAL MEDIA

Students admitted to the master's degree program are required to submit scores for the Graduate Record Examination Aptitude Test and/or the Miller Analogies Test during their first session (fall, spring, or summer) of enrollment.

**Admission to Degree Candidacy.** Upon completion of 15 semester hours, application for degree candidacy may be made by students who meet the following requirements:

1. A 3.00 average in courses in educational media.
2. A 2.75 average in over-all graduate work.
3. Successful performance on the Graduate Record Examination and/or the Miller Analogies Test.
4. Satisfactory performance on a proficiency examination in the field of educational media after completion of 12 semester hours.

**The Comprehensive Examination.** Admission to the comprehensive examination is gained

upon admission to degree candidacy, completion of all required courses and 28 semester hours of course work.

**Degree Requirement.** The candidate must perform satisfactorily on the comprehensive examination and satisfactorily complete the curriculum shown below. Total curriculum involves 36 semester hours.

**Required Courses:** EDF 500 and EDF 510—6 semester hours.

**Area of Concentration Requirements:** EDM 502, 511, 519, 520, 522, 590—18 semester hours.

**Area of Concentration Electives.** 6 semester hours chosen under advisement from offerings in Instructional Media.

**Free Electives:** 0-3 semester hours (under advisement).

## MASTER OF SCIENCE IN INSTRUCTIONAL MEDIA

Students admitted to this program are required to submit a score for the Miller Analogies Test during the first session of enrollment.

**Admission to Degree Candidacy.** Before completion of 15 semester hours, application for degree candidacy is made by students who meet the following requirements:

1. A 3.00 average in course work.
2. Successful performance on the Miller Analogies Test.
3. Satisfactory performance on a proficiency examination in educational media after completion of 12 semester hours.
4. Successful completion of a project in the area of concentration.

**The Comprehensive Examination.** Admission to the comprehensive examination is gained upon admission to degree candidacy, completion of all required courses, and 28 semester hours of work.

The candidate must perform satisfactorily on the comprehensive examination and satisfactorily complete the curriculum shown below. Total curriculum involves 36 semester hours.

**Required Courses:** EDM 502, 520, 522, 560, 563, 591—18 semester hours.

**Concentration Area:** Each student must pursue a concentration of 9 semester hours in one of the four following areas and at least 3 semester hours in the remaining areas.

- A. Photography. EDM 513, 525, 526, 528.
- B. Cinematography. Three courses chosen from EDM 505, 529, 530, 531.
- C. Television. EDM 533, 534, 535.
- D. Research in Communications. EDF 500, RES 520, EDH 591, EDM 595, EDM 600.

**Electives:** 3 semester hours chosen under advisement. The candidate is required to show competence in, or to take a course in each of the above three areas not chosen for his concentration.

## INSTRUCTIONAL MEDIA SPECIALIST CERTIFICATION

24 Semester Hours

In order to obtain this certificate the student must:

1. Hold a Pennsylvania certificate valid for teaching in the elementary or secondary schools.
2. Complete the state-approved curriculum, which consists of EDM 502, 519, 520, 522, 560, 590, and 6 semester hours of electives taken under advisement.

3. Achieve an overall average of 2.75 in the program.
4. Perform successfully on a final proficiency examination.

## COURSE DESCRIPTIONS

### INSTRUCTIONAL MEDIA EDUCATION

Symbol: EDM

**501 Orientation to Instructional Media (3)** Survey of modern educational media with opportunities for laboratory activities.

**502 Theory of Selection and Effective Utilization of Instructional Media (3)** Evaluates diverse types of educational media and explores means of integrating these media into the instructional situation.

**505 Theory of Motion Picture Production (3)** History and development of the motion picture, with emphasis on educational motion pictures. Cinematographic techniques; the impact of 35 mm., 16 mm., and 8 mm.; the single-concept instructional film. An evaluation of diverse types of films as they apply to types of learning.

**508 Instructional Materials in the Elementary School Curriculum (3)** Practice in techniques of using and evaluating communications media in the classroom. Correlating audio-visual materials and techniques with the elementary program.

**511 Programmed Instruction (3)** Program writing is stressed in this workshop type course covering the history and psychology of programmed instruction. Trends in programmed instruction; program evaluation; programming techniques.

**513 Production of Multi-Media Programs (3)** Techniques in the production of slide-tape presentations, audio-tape presentations, 8 mm. magnetic sound film lessons, and other self-teaching sequences. PREREQ: 525.

**519 Library Science (3)** Organization and administration of libraries, with emphasis on instructional materials. Selecting, cataloging, and evaluating instructional materials.

**520 Designing Visual Materials (3)** Techniques of lettering and design for display and projection materials.

**522 Production of Visual Materials (3)** Basic local production techniques including copying, duplicating, mounting, displaying, and evaluating graphics and flat pictures. Investigates techniques for designing and locally producing projectuals; evaluates commercial techniques of transparency production. PREREQ: EDM 520.

**524 Advanced Production of Visual Materials (3)** Design and production of projectuals using technamation, color imbibition, photo-copy, and advanced diazo techniques. Investigation of

commercial production of transparencies. PREREQ: EDM 522.

**525 Basic Photography (3)** A basic laboratory course in the taking and processing of still pictures.

**526 Intermediate Photography (3)** A workshop course for those who have had a basic photography course or previous photographic experience. This course will stress an aesthetic creative approach to black and white and color photography with small format cameras and will involve advanced techniques of exposure, lighting, composition, macrophotography and film and print processing. PREREQ: 525.

**528 Advanced Still Photography (3)** Lecture and laboratory experiences in the use of large-format cameras. PREREQ: EDM 525.

**529 Production of 8 mm. Motion Pictures (3)** Prepares teachers to produce and/or guide students in the production of 8 mm. films.

**530 Cinematography I (3)** Scripting and shooting 16 mm. motion pictures.

**531 Cinematography II (3)** Editing and sound recording on 16 mm. films. PREREQ: EDM 530.

**533 Introduction to Television (3)** Development of educational television and the instructional use of commercial, educational, and closed-circuit television in the classroom.

**534 Instructional Television Production I (3)** Planning, writing, producing, and evaluating instructional television productions. PREREQ: EDM 533.

**535 Instructional Television Production II (3)** Production of telecasts in selected subject areas with emphasis on videotape recording. PREREQ: EDM 534.

**560 Organization and Administration of Media Program I (3)** The function of the school's educational media program; selection and evaluation of materials and equipment; unit costs; problems of developing and maintaining an efficient operation. PREREQ: 12 graduate credits in educational media.

**563 Field Study of Media Programs (3)** A scheduled group or individual tour, foreign or domestic, in which students investigate notable installations or projects in educational media.

**565 Seminar in Mass Media (2)** Explores current problems in the use of instructional media. PREREQ: 12 graduate credits in educational media.

590 Internship Program in Instructional Media (3) Practicum in supervising and implementing instructional services. PREREQ: 18 credits in educational media.

591 Seminar in Research in Communications (3) Basic elements of communication theory, applied to audio-visual education. Research in audio-visual communication is analyzed.

595 Independent Studies in Instructional Media (1-3)

598 Workshop—By Design (1-6)

600 Research Report (2)



# Linguistics

(Interdepartmental Area)

Dr. Falgie and Dr. Smith, *Coordinators*

## LINGUISTICS GROUP

Diane O. Casagrande  
(*Speech and Theatre*)  
W. Stephen Croddy  
(*Philosophy*)

Joseph Falgie, Jr.  
(*English*)  
John T. Kelly  
(*English*)

Willie E. Page, Jr.  
(*English*)  
Philip D. Smith, Jr.  
(*Foreign Languages*)  
Paul Stoller  
(*Anthropology-Sociology*)

Although West Chester presently offers no degree in linguistics, students interested in developing a concentration in this area may elect courses from the following list. For additional information consult one of the coordinators.

## COURSE DESCRIPTIONS

### LINGUISTICS

Symbol: LIN

501 Introduction to Linguistics (3) Basic concepts of language description, classification, change, reconstruction, dialectology and sociolinguistics.

503 Phonology and Morphology (3) Phonetics, phonemics, morphophonemics, and the morphological composition of words.

504 Syntax (3) A comparative study of the various modern approaches to the study of grammar. PREREQ: LIN 501 or ENG 575.

505 Transformational Grammar (3) Basic concepts of transformational theory and their application in teaching. PREREQ: LIN 501 or ENG 575.

506 Meaning in Language (also PHI 506) (3) See PHI 506.

512 Descriptive Linguistics (3) Analysis of the phonemic, morphological, and syntactic features

of typologically divergent languages. Procedures for eliciting linguistically relevant data about a language from a native speaker. PREREQ: LIN 503.

515 General Semantics (also SPC 515) (3) See SPC 515.

523 Philosophy of Language (also PHI 523) (3) See PHI 523.

540 Sociolinguistics (also SOC 540) (3) The study of language in its social context: the ethnography of communication; language and society, social classes, ethnic groups, politics, sex, and education. PREREQ: LIN 501 or permission of instructor.

555 Psycholinguistics (also PSY 555) (3) An introduction to the study of the relationships between language and thought. Models of language, communication theory, and learning theory. Major emphasis on natural language development and bilingualism.

580 Language and Culture (also ANT 580) (3)

Language as an aspect of culture; linguistic-perceptual-cognitive categories; social and psychological aspects of language. PREREQ: LIN 501 or permission of instructor.

590 Independent Study (1-3)



# Marine Science

West Chester State College, along with 15 other colleges and universities, provides opportunities for field studies in marine sciences at Wallops Island, Virginia. Undergraduate and graduate courses are given each summer in five three-week sessions. The consortium offers courses in navigation, geology, biology, chemistry, and physics. Consult the School of Sciences and Mathematics about the applicability of these courses to degree programs within the school.

The courses listed below are a sample of the more than 30 courses offered. Since the courses offered each summer are not chosen until March, it is necessary for interested students to contact Mr. Jones (Biology) for details. Approximately 15 different courses are offered each summer.

## COURSE DESCRIPTIONS

### MARINE SCIENCE

Symbol: MSC

**500 Problems in Marine Science (3)** The student chooses Option A or Option B. Option A: enrollment in an approved 400-level course in marine science and completion of an approved research project. Option B: an independent research project.

**520 Marine Microbiology (3)** Sample collection and laboratory techniques in identification of marine microorganisms; physical nature of marine waters; their effect on microbial populations. PREREQ: general microbiology.

**530 Coastal Sedimentation (3)** Depositional environments. Their processes, sediments, facies. PREREQ: introductory course in sedimentation or marine geology, or consent of instructor.

**540 Environmental Sciences Education (3)** Field environmental education. Emphasis on coastal zones. Sources, facilities, methods, concepts.

**598 Topics in Marine Science (1-3)** One-week survey of remote sensing techniques for study of the coastal environment. Seminars by NASA personnel in the ERTS program. PREREQ: one year of physics.

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# Mathematical Sciences

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Mr. Milliman, *Chairperson*

Dr. Mandelbaum, *Coordinator of Graduate Studies*

## PROFESSORS

Richard G. Branton, Ph.D., *University of Pennsylvania*

Albert E. Filano, Ph.D., *Pennsylvania State University*

Frank Grosshans, Ph.D., *University of Chicago*

Sebastian S. Koh, Ph.D., *University of California*

James E. L'Heureux, Ph.D., *Louisiana State University*

Eli M. Mandelbaum, Ph.D., *University of Pennsylvania*

Michael Montemuro, Ed.D., *Temple University*

John W. Weaver, Ph.D., *Johns Hopkins University*

## ASSOCIATE PROFESSORS

James D. Fabrey, Ph.D., *Massachusetts Institute of Technology*

Wesley E. Fasnacht, M.S., *State University of New York at Buffalo*

John J. Kerrigan, D.Ed., *Temple University*

Frank E. Milliman, A.M., *Columbia University*

Ronnie L. Morgan, Ph.D., *University of Missouri*

Joseph G. Moser, M.S., *Purdue University*

William H. Seybold, Jr., M.A., *Northwestern University*

## ASSISTANT PROFESSORS

Francoise M. Schremmer, Ph.D., *University of Pennsylvania*

Mark Wiener, M.A., *University of Illinois*

Paul Wolfson, Ph.D., *University of Chicago*

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The Department of Mathematical Sciences offers the Master of Arts degree with options in pure mathematics, mathematics education, and applied computer science.

The first option is for students interested in furthering their mathematical background and provides the foundation for continued work in mathematics leading to the Ph.D. degree in pure mathematics.

The second option is primarily directed to teachers of mathematics who wish to strengthen their background in mathematics and mathematics education; in addition it provides the foundation for the Doctor of Arts or the Ph.D. degree in mathematics education.

The last option is primarily for secondary mathematics or science teachers, preparing them for computer technology and its applications. Students with backgrounds other than teaching may tailor their programs to satisfy their particular needs and professional goals.

The department also offers the Master of Science in Computer Science. It has two primary options: a research program for students with an undergraduate degree in computer science, and a professional program for students with an undergraduate degree in areas other than computer science.

The department also cooperates with the School of Education in offering the Master of Education degree in mathematics.

## Admission to the M.A. Program

In addition to meeting the basic admission requirements of the college, applicants—prior to enrollment—must schedule an interview with the department chairperson. Applicants must

present a minimum of 30 semester hours of mathematics including a full treatment of calculus and at least one advanced undergraduate course in modern algebra and one in advanced calculus. Deficiencies in these areas may be removed by successfully completing MAT 512—Modern Algebra and/or MAT 541—Advanced Calculus. At the discretion of the department, Graduate Record Examination may be required.

### Admission to the M.S. Program

In addition to meeting the basic admission requirements of the college—applicants must have completed course work in computer science and mathematics, including CSC 505-508, 561, 3 semesters of applied calculus and one semester of statistics. Deficiencies in these areas may be removed by appropriate courses approved by the program advisor.

### Admission to the M.Ed. Program

In addition to meeting the basic admission requirements of the college, applicants—prior to enrollment—must schedule an interview with the department chairperson. Applicants must present a minimum of 24 semester hours of mathematics including a full treatment of calculus and at least one advanced undergraduate course in modern algebra or advanced calculus. Deficiencies in these areas may be removed by successfully completing MAT 512—Modern Algebra or MAT 541—Advanced Calculus.

### Requirements for The M.A., M.S. and M.Ed. Degrees

In addition to completing the course requirements shown below, candidates for either degree must pass a comprehensive oral examination.

## MASTER OF ARTS IN MATHEMATICS

### 30 Semester Hours

**Core Courses:** Candidates in all options are required to take 9 semester hours including MAT 515, 545, and either MAT 575 or an approved course in statistics or applied mathematics.

### Required Courses 12 semester hours

- A. Pure Mathematics Option: MAT 516, 535, 546, 575 (or 576 if 575 is selected for Core).
- B. Mathematics Education Option: MTE 504, 507, 508, and one of the following: MTE 505, 551, or 552.
- C. Applied Computer Science Option: as specified by student's graduate committee chairperson depending on student's background and experience.

**Electives (9 semester hours):** Chosen under advisement from the course offerings below bearing the prefix MAT or STA except MAT 503, 512, and 541.

Modifications in this program may be made with the approval of the department chairperson.

## MASTER OF SCIENCE IN COMPUTER SCIENCE

### 30 Semester Hours.

**Core Courses:** (12 semester hours) CSC 525, 590, 599 (2 semesters—2 semester hours each).

**Required Courses:** (12 semester hours)—Chosen under advisement from the following: CSC 521, 531, 541, 543, 571, 581, 610, 620.

**Electives (6 semester hours):** Chosen with the approval of advisor from course offerings bearing the prefix CSC, MAT, or STA, or involving the application of computer science to another discipline, such as psychology, economics, physics, etc.

## MASTER OF EDUCATION IN MATHEMATICS

### 34 Semester Hours

The candidate must satisfy the requirements as outlined on pages 60-61.

In the area of concentration (20-22 semester hours) MAT 515, 545, MTE 507, and either MTE 508 or 509 are required. Electives (8-10 semester hours) are chosen under advisement from the course offerings below bearing the prefix MAT or STA.

Modifications in the area of concentration may be made with the approval of the department chairperson.

## COURSE DESCRIPTIONS

### COMPUTER SCIENCE

Symbol: CSC

**501 Introduction to Computers (3)** Prepares the student to program and use the computer for his various needs. The student writes a number of programs including a major programming project relative to his academic major. Primarily for non-majors. The structured BASIC language is used.

**505 Introduction to Computer Science (3)** Introduction to the art and science of computing and its applications. Topics covered are elementary data structures, structured programming techniques, algorithm development, graphics display, error analysis, and file manipulation. A final substantive programming project is required of each student. The PASCAL language is used. PREREQ: two years of high school algebra.

**506 Applied Software (3)** Techniques of program design, documentation and implementation, such as top-down design, modularization, structured coding, structured walk-thru and programming teams. The COBOL language is used to acquaint the student with commercial computing requirements. PREREQ: CSC 505 (or equivalent).

**507 Algorithmic Languages (3)** Analysis and comparison of various high level languages. Data structures are presented with the primary languages being advanced PASCAL and APL. PREREQ: CSC 505. (A working knowledge of APL is desirable). Offered in Fall & Spring.

**508 Computer Organization (3)** Study of the architectures of various computer systems and their native language. Use of assembler languages, including macros and parameter passing. Development of more complex data structures. PREREQ: CSC 507 or permission of instructor. Offered in Spring.

**510 Computer Programming and Numerical Methods (3)** Algorithmic methods. The computer is used to solve a variety of numerical and non-numerical problems. PREREQ: CSC 501 (or equivalent) and one year of calculus.

**515 Introduction to Computer Science with APL (3)** The art and science of computing is introduced via the language APL. (Different languages are used in CSC 501 and CSC 505.) PREREQ: 2 years of high school algebra.

**521 Data Base Management Systems (3)** Detailed study of the characteristics of generalized data management systems, including a survey of some of the systems in widespread use. Emphasis is placed on techniques for improving the interface between a manager and the information he needs to make decisions through easy-to-use generalized reporting systems. PREREQ: CSC 507 and 508 (or equivalent). Offered in fall and spring.

**525 Systems Design (4)** General techniques of systems design are presented and related to an actual case study from local business/industry. PREREQ: Degree Candidacy.

**531 Operating Systems (3)** Operating systems and their user characteristics are studied. Maintenance of a complex operating system with emphasis on the important trade-offs made in tuning the system. Details of core and file management, system accounting, and other user-related services. PREREQ: CSC 507 (or equivalent). Offered in spring—odd years.

**535 On-Line Computing (3)** Characteristics of data communication equipment. Design, implementation, and modification of information systems in an on-line environment. File management systems and data structures appropriate to real-time computing with particular emphasis on back-up and recovery techniques. PREREQ: CSC 508 (or equivalent). Offered in Spring—even years.

**541 Compiler Construction (3)** Translation, loading, and execution of a higher-level language. Syntax analysis of simple expressions and statements. Organization of a compiler, including compile-time and run-time symbol tables, error diagnostics, and object code optimization. Design and implementation of a simple compiler. PREREQ: CSC 507 and 508 (or equivalent). Offered in spring—even years.

**543 Formal Languages (3)** A study of the various types of automata and their associated lan-

guages. Designed to give a student an understanding and appreciation of the production system for languages and their relationship to automata. PREREQ: CSC 508 (or equivalent). Offered in fall—even years.

**550 Microcomputer Literacy (3)** An introductory computer literacy course. Students will become familiar with microcomputers in a “hands on” setting. After learning to program in BASIC students will create computer based activities for use in their own professional settings.

**561 Simulation (3)** Computer simulation utilizing logical, numerical, and Monte Carlo modeling to represent systems. Use of special languages to simulate actual systems. PREREQ: CSC 501 (or equivalent), calculus, linear algebra and statistics. Offered in spring.

**571 Computer Graphics (3)** Construction and manipulation of prototypes for graphical display purposes. PREREQ: CSC 507 (or equivalent) and calculus and linear algebra. Offered in spring.

**581 Artificial Intelligence (3)** Thorough analysis and study of the LISP language in its application to non-numeric problems and symbol manipulations. Application to gaming, scene analysis and pattern recognition, linguistic analysis and semantic representation, image analysis and solution spaces, problem solving and attention control. Each student required to take one substantial problem and solve using the LISP language and the techniques of artificial intelligence. PREREQ: CSC 508 (or equivalent). Offered in fall—odd years.

**590 Software Engineering (4)** Programming teams design and implement a realistic, fairly complex, software system. Design techniques, analysis, programming style, testing, and documentation will be stressed. PREREQ: Degree Candidacy.

**595 Topics in Computer Science (3)** Topics announced at time of offering. PREREQ: consent of instructor. Offered as needed.

**599 Journal Seminar (2)** Student, in conjunction with professor, selects topics to be studied in depth via literature search, reading of pertinent articles, and speaking in the seminar. PREREQ: CSC 525 or 590.

**610 Thesis (6)** An expository thesis based on intensive study of a subject of contemporary interest. PREREQ: Approval and supervision by an appropriate faculty member.

**620 Research Thesis (6)** A research thesis presenting new and significant contributions to the field. It is normally completed by former undergraduate majors in computer science. PREREQ: Approval and supervision by an appropriate faculty member.

## MATHEMATICS

Symbol: MAT

**503 History of Mathematics (3)** Development of mathematics from prehistoric time to present. Emphasis on changes in the mainstreams of mathematical thought through the ages.

**506 Fundamentals of Mathematics for Physics (3)** A critical examination of mathematics from the viewpoint of its physical applications.

**512 Modern Algebra (3)** For students with background deficiencies in algebra. Abstract mathematical systems studied include groups, rings, and fields. Offered in summer.

**513 Linear Algebra (3)** Vectors, vector spaces, determinants, linear transformations, matrices, bilinear and quadratic forms. PREREQ: MAT 512 (or equivalent).

**514 Theory of Numbers (3)** Elementary number theory and selected topics in analytic number theory.

**515 Algebra I (3)** Elements of abstract algebra. Groups, commutative ring theory, modules, and associative algebras over commutative rings. PREREQ: MAT 512 (or equivalent). Offered in fall—odd years.

**516 Algebra II (3)** A continuation of MAT 515. Vector spaces, representation theory, and Galois theory. PREREQ: MAT 515. Offered in spring—even years.

**517 Topics in Algebra (3)** Advanced algebraic theories. Homological algebra, algebraic geometry, and algebraic number theory. PREREQ: MAT 516.

**532 Modern Geometry (3)** Foundations of geometry. Axiomatics and the structure of a geometric system. Euclidean geometry from the standpoint of the Euclid and Hilbert postulates. Certain topics in projective and hyperbolic geometry.

**533 Projective Geometry (3)** An algebraic approach to projective geometry. Invariant theory, projective spaces, conics and quadratic forms, subgeometries of real projective geometry.

**535 Topology (3)** Filters, nets, separation axioms, compactness, connectedness, uniform spaces.

**536 Algebraic Topology (3)** Algebraic topological invariants. Homotopy theory; simplicial, singular and Čech homology; cohomology theories. PREREQ: MAT 516, MAT 535.

**541 Advanced Calculus (3)** For students with background deficiencies in analysis. Ordinary and uniform limits; sequences of functions; the Riemann integral. Offered in summer.

**543 Topics in Differential Equations (3)** Ad-

vanced topics. Existence and uniqueness theorems, stability theory, singular points, regular singular points. Sturm separation theorem, and the "method of Liapunov."

**545 Real Analysis I (3)** A rigorous study of real valued functions of real variables. PREREQ: MAT 541 (or equivalent). Offered in fall—even years.

**546 Real Analysis II (3)** Continuation of MAT 545. PREREQ: MAT 545. Offered in spring—odd years.

**570 Mathematical Models in the Life, Physical, and Social Sciences (3)** Techniques and rationales of model building. Applications to the life, physical, and social sciences.

**572 Proseminar (3)** Seminar in generating and solving problems in mathematics.

**575 Complex Analysis I (3)** A rigorous study of complex valued functions of complex variables.

**576 Complex Analysis II (3)** Continuation of MAT 575. PREREQ: MAT 575.

**581 Methods of Applied Mathematics (3)** Vector analysis, complex analysis. Fourier analysis, and Sturm-Liouville Theory.

**583 Operations Research and Applied Mathematics (3)** Topics in applied mathematics. Linear and dynamic programming, game theory, extreme value problems, inventory, allocation, and queuing and search problems.

**599 Independent Study (1-3)** Offered as needed.

**610 Thesis (3-6)** Offered as needed.

## MATHEMATICS EDUCATION

Symbol: MTE

**501 Fundamental Concepts of Mathematics I (3)** Selected topics which reflect the spirit of the modern mathematics currently taught in the elementary school. PREREQ: a one-semester undergraduate course in modern mathematics.

**502 Fundamental Concepts of Mathematics II (3)** Topics selected by mutual decision of students and professor on the basis of the experience in MTE 501. PREREQ: MTE 501.

**504 Research in Mathematics Education (3)** Techniques of research in mathematics education. Analysis of types of research; selection of a problem; formulation of a plan of investigation and report, including statistical analysis.

**505 Research Techniques in Mathematics Education (3)** Statistical principles in experimental design. General linear model correlation, regression, statistical inference, analysis of variance, factorial designs. Critiques of current literature.

**507 Current Trends in Teaching Mathematics (3)** Philosophy, techniques, subject matter, and effectiveness of current secondary school mathematics courses examined against the changing character of American society and technology.

**508 Topics in Mathematics Education (3)** Topics announced in advanced. Typical topics include: teaching mathematics to the slow learner, methods of research in mathematical education, mathematics laboratories, and individualized instruction.

**509 Seminar in Mathematics Education (3)** Topics depend upon student interest. Student presentations required; informal discussion encouraged. Guests, including secondary school principals and mathematics curriculum coordinators, frequently participate.

**510 Algebra for the Elementary Teacher (3)** An introduction to modern algebra. Topics include a comparative study of mathematical systems. PREREQ: MTE 501 (or equivalent).

**530 Geometry for the Elementary Teacher (3)** Basic concepts in geometry. Euclidean geometry and postulative systems. PREREQ: MTE 501 (or equivalent).

**550 Topics in Mathematics for Elementary School Teachers (3)** In-depth coverage of topics in mathematics introduced in grades K-8. Topics include: number theory, probability, statistics, inequalities, introduction to the computer. Emphasis among these and inclusion of additional topics depend upon student preparation and need. PREREQ: MTE 501 (or equivalent).

**551 Mathematics for the Disadvantaged (3)** Examination of current programs in mathematics for the disadvantaged; discussion of the pertinent research literature; development of materials and techniques for teaching the slow learner and low achiever.

**552 Materials for Teaching Secondary School Mathematics (3)** Examination of available commercial materials for the teaching of mathematics; creation of new and original materials for specific mathematical concepts and specific needs of class members.

**553 Teaching Elementary School Mathematics (3)** In-depth treatment of strategies, methods, and materials for teaching the following concepts in an elementary classroom: place value; addition, subtraction, multiplication, and division of whole numbers; measurement; elementary number theory; geometry; fractions; integers. PREREQ: MTE 501 (or equivalent).

**554 Current Trends in Teaching Elementary School Mathematics (3)** History and development of the modern elementary school mathematics programs. Theories and findings of recent and contemporary learning theorists are investi-

gated. Modern organizational strategies surveyed include team teaching, individualized instruction, open space, etc. Contemporary instruction strategies such as individualized learning systems, mathematics laboratories, individually prescribed instruction, etc., are studied. PREREQ: MTE 501 (or equivalent).

**556 Development of Mathematics Curricula in the Elementary Grades (3)** for the development of a specialty in modern elementary school mathematics education. Curriculum development techniques; selection and analysis of materials; individualization of instruction programs, techniques, and media. PREREQ: MTE 501 (or equivalent).

**558 Teaching Mathematics in the Junior High School (3)** Methods and materials for teaching the concepts of middle school and junior high school mathematics. Objectives are developed, and serve as the basis for all course work. Current textbooks, achievement tests, and audio-visual materials are reviewed.

**560 Teaching Algebra in the Secondary School (3)** Methods and materials for teaching the concepts of first and second year algebra. Emphasis on relevant applications to real-life situations. Objectives as well as criterion-referenced test items are developed for pre-algebra as well as for the two algebra courses. Current textbooks achievement tests, and audio-visual materials on algebraic topics are reviewed.

**561 Calculus for Teachers (3)** Analytic geometry of both the straight line and conics, and elements of the calculus of functions of a single real variable are reviewed. Topics include: limits, continuity, the derivative and integral and their applications, curve sketching and polar coordinates. Emphasis on methods of teaching these topics to secondary school students.

**562 The Laboratory Approach to Teaching Elementary School Mathematics (3)** The materials-oriented approach to teaching elementary school mathematics, including cuisenaire rods, the geoboard, attribute games, tangrams, multibase blocks. Emphasis on learners' participation in activities directly related to mathematics of the elementary school. Use of materials extends to all grade and ability levels.

**563 Use of the Mathematics Laboratory in the Secondary School (3)** Laboratory investigations and the curriculum; planning laboratory investigations; facilities for the laboratory approach; assessing the effectiveness of this approach with the low, average, and high achiever in the secondary school.

**564 Individualizing Instruction in Secondary School Mathematics (3)** Analysis of current programs for individualizing instruction in secondary school mathematics (IDEA, PLAN, Nova,

Research for Better Schools, and Coatesville Project); analysis and development of an individualized instruction unit with performance objectives, criterion-referenced test items, media orientation, and appropriate tools for evaluation.

**567 Teaching Geometry in the Secondary School (3)** Methods and materials for teaching the concepts of geometry in the secondary school. Emphasis on the development of relevant applications of the concepts of geometry in real-life situations.

**568 Seminar for Secondary School Mathematics Teachers (3)** Selected topics of current interest in secondary school mathematics for the in-service teacher.

**569 Seminar for Elementary School Mathematics Teachers (3)** Selected topics of current interest in elementary school mathematics for the in-service teacher.

**599 Independent Study (1-3)**

**610 Thesis (3-6)**

## STATISTICS

Symbol: STA

**521 Statistics I (3)** For non-mathematics majors. Emphasis on applications to education, psychology, and the sciences. Distributions, measures of central tendency and variability, correlation, regression and hypothesis testing, other topics.

**523 Mathematical Statistics I (3)** A rigorous treatment of probability spaces and an introduction to the estimation of parameters.

**524 Mathematical Statistics II (3)** Continuation of STA 523. Correlation, sampling, tests of significance, analysis of variance, other topics. PREREQ: STA 523.

**525 Probability (3)** An advanced approach to the elements of probability. Discrete and continuous random variables, probability distributions, sampling distributions.

**599 Independent Study (1-3)** Offered as needed.

## SERVICE COURSES IN MATHEMATICAL SCIENCES

### COMPUTER SCIENCE (CSC)

**501 Introduction to Computers**

**550 Computers in Education**

### MATHEMATICS EDUCATION (MTE)

**501 Fundamental Concepts of Mathematics I**

**502 Fundamental Concepts of Mathematics II**

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- |     |                                                               |       |                                                                   |
|-----|---------------------------------------------------------------|-------|-------------------------------------------------------------------|
| 510 | Algebra for the Elementary Teacher                            | 561   | Calculus for Teachers                                             |
| 530 | Geometry for the Elementary Teacher                           | 562   | The Laboratory Approach to Teaching Elementary School Mathematics |
| 550 | Topics in Mathematics for Elementary School Teachers          | 563   | Use of the Mathematics Laboratory in the Secondary School         |
| 553 | Teaching Elementary School Mathematics                        | 564   | Individualizing Instruction in Secondary School Mathematics       |
| 554 | Current Trends in Teaching Elementary School Mathematics      | 567   | Teaching Geometry in the Secondary School                         |
| 556 | Development of Mathematics Curricula in the Elementary Grades | 568   | Seminar for Secondary School Mathematics Teachers                 |
| 558 | Teaching Mathematics in the Junior High School                | 569   | Seminar for Elementary School Mathematics Teachers                |
| 560 | Teaching Algebra in the Secondary School                      |       | STATISTICS (STA)                                                  |
|     |                                                               | 521-2 | Statistics I-II                                                   |
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# Music

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James D. Sullivan, *Coordinator*  
 Alexander Antonowich, *Advisor for Undergraduate Admission*  
 Ira C. Singleton, *Advisor for Graduate Studies*

## DEPARTMENT OF MUSIC EDUCATION

Dr. Singleton, *Chairperson*

### PROFESSORS

Alexander Antonowich, Ed.D., *Columbia University*  
 Margaretta A. Carey, Ed.D., *Pennsylvania State University*  
 Richard C. Merrell, Ed.D., *Pennsylvania State University*  
 Ira C. Singleton, Ph.D., *New York University*  
 C. Wayne Stringer, Ed.D., *Columbus University; Diploma in Kodaly, Danube Bend University*  
 James R. Wells, Ed.D., *Columbia University*

### ASSOCIATE PROFESSOR

Carol Belmain, D.M.A., *Temple University*

## DEPARTMENT OF MUSIC HISTORY AND LITERATURE

Dr. Schmidt, *Chairperson*

## PROFESSORS

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 Constantine Johns, Ed.D., *Columbia University*  
 Sterling Murray, Ph.D., *University of Michigan*  
 Frederick C. Pflieger, Ph.D., *West Virginia University*  
 Liselotte M. Schmidt, Ed.D., *Columbia University*

## ASSISTANT PROFESSOR

Mary Vinquist, Ph.D., *University of North Carolina*

## DEPARTMENT OF MUSIC THEORY AND COMPOSITION

Dr. Wilkinson, *Chairperson*

## PROFESSORS

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 Harry Wilkinson, Ph.D., *Eastman School of Music*

## ASSOCIATE PROFESSORS

Charles D. Gangemi, M.A., *University of Pennsylvania*  
 James McVoy, Ph.D., *Eastman School of Music*  
 Larry A. Nelson, Ph.D., *Michigan State University*  
 James D. Sullivan, M.A., *Eastman School of Music*

## INSTRUCTOR

Deborah E. Sanford, M.M., *Temple University*

## DEPARTMENT OF INSTRUMENTAL MUSIC

Dr. Barrow, *Chairperson*

## PROFESSORS

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 Kenneth L. Laudermilch, D.M.A., *Catholic University of America*

## ASSOCIATE PROFESSORS

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 Eugene Klein, M.M.E., *Indiana University*  
 Harrison C. Roper, M.Mus., *Catholic University of America*  
 H. Lee Southall, M.A., *Trenton State College*

## ASSISTANT PROFESSORS

Terry E. Guidetti, M.Mus., *Northwestern University*  
 Ted Hegvik, M.M., *University of Michigan*  
 Sylvia Moss Ahramjian, M.M., *Indiana University*

## INSTRUCTORS

Joseph A. Goebel, Jr., B.S., *Millersville State College*  
 Emily T. Swartley, M.Mus., *Temple University*

## DEPARTMENT OF KEYBOARD MUSIC

Dr. Lee, *Chairperson*

## PROFESSORS

Robert E. Pennington, Mus.D., *Northwestern University*  
 Robert Schick, A.Mus.D., *Eastman School of Music*  
 Charles A. Sprenkle, D.Mus. A., *Peabody Conservatory of Music*  
 Richard K. Veleta, D.Mus., *Northwestern University*

### ASSOCIATE PROFESSORS

Robert M. Bedford, M.S., *The Julliard School*  
 Praxiteles Pandel, M.S., *The Julliard School*  
 Shirley T. Pethes, M.Mus., *Indiana University*  
 Jacques C. Voois, M.Mus., *Manhattan School of Music*  
 W. Benjamin Whitten, M.Mus., *Peabody Conservatory of Music*

### ASSISTANT PROFESSORS

Patricia Taylor Lee, D.M.A., *Temple University*  
 Robert C. Lucas, M.D., *University of Michigan*  
 John Robilette, M.F.A., *University of California at Los Angeles*

### INSTRUCTOR

Richard W. Fields, M.M., *The Julliard School*

### DEPARTMENT OF VOCAL AND CHORAL MUSIC

Mr. Sweet, *Chairperson*

### ASSOCIATE PROFESSORS

Lois W. Alt, M.Mus., *University of Michigan*  
 W. Larry Dorminy, D.Mus., *Indiana University*  
 Mary Lou Frenz, M.Mus., *Westminster Choir College*  
 H. Raymond Friday, M.Mus., *Diploma, Academy of Vocal Arts*  
 Emil M. Markow, M.A., *Columbia University*  
 Jane E. Sheppard, M.Mus., *Indiana University*  
 Roy D. Sweet, M.Mus., *Eastman School of Music*  
 Joy Vandever, M.Ed., *West Chester State College*  
 G. Alan Wagner, M.F.A., *Carnegie-Mellon University*  
 Lois M. Williams, M.A., *Columbia University; Fulbright Scholar (Germany 1953-1955)*

### ASSISTANT PROFESSOR

Stella F. Conway, M.Mus., *The Philadelphia Academy of Music*

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The School of Music offers programs leading to the Master of Music degree with concentrations in music education, performance, accompanying, music theory, or composition; and the Master of Arts degree in history and literature of music. Course selections to meet degree requirements are made by candidates in consultation with their advisors and with due consideration of the candidate's goals, abilities, needs, and interests.

### Admission to Degree Programs in Music

In addition to meeting basic college requirements, stated in Admission, applicants for degree programs are considered on the basis of academic record, interviews, preliminary tests, and auditions. Prior to enrollment:

**All applicants** must (1) possess appropriate undergraduate degrees and may be required to remedy not more than 12 credits of undergraduate deficiency if the undergraduate degree is not in the area of the intended graduate degree; (2) schedule interviews with the appropriate department chairperson in the School of Music.

**Performance applicants:** (1) schedule an interview with the chairperson of the appropriate applied music department; (2) submit a repertoire list; (3) demonstrate performance ability at an advanced level by performing for an audition committee.

**Accompanying applicants** must: (1) schedule an interview with the chairperson of the Keyboard Department; (2) submit transcripts showing completion of a Bachelor's degree in music, including one year (6 semester hours) of a foreign language, French, German, or Italian preferred; (3) demonstrate accompanying ability at an advanced level by performing for an audition committee, including piano technique, solo repertoire, accompaniments, and sight reading.

**Theory and/or Composition applicants:** (1) schedule an interview with the chairperson of the Department of Music Theory and Composition; (2) demonstrate sufficient pianistic ability to meet the demands of the program. Composition applicants must, in addition, submit original works showing technical facility in composition.

**Music History and Literature applicants:** (1) schedule an interview with the chairperson of the Department of Music History and Literature; (2) arrange for the required test in basic principles of music history and style-critical analysis.

### Explanation of Numbering System

Course numbers indicate areas of study in music as follows:

500-510	Core Requirements
511-539	Music Education
540-589	Applied Music
590-599	Pedagogy
600-649	Literature and History
650-679	Music Theory
680-699	Research

## DEGREE REQUIREMENTS

### Note:

*Each degree candidate is individually responsible for satisfying degree candidacy and graduation requirements stated elsewhere in this catalog, and for meeting deadline dates for the May, August, or December graduation, as appropriate.*

**Master of Music degree in Music Education.** Students may choose either the thesis program of 30 semester hours or the non-thesis program of 34 semester hours. Both programs require completion of 9 credits in 3 core courses: Music 500, 503, 510. Additional course requirements are:

**Thesis program:** 6 credits in music education; 6 credits in music electives; 3 credits in free electives; 6 credits in research (Music 691, 692, 699).

**Non-thesis program:** 6 credits in music education; 3 credits in applied music; 3 credits in structure and organization of music; 3 credits in literature and history of music; 0-3 credits in unrestricted electives; 4 credits in research (Music 691, 692, 698) or recital option (Mus 691, 696, Individual Lessons). Candidates desiring to pursue the recital option in voice must audition before the voice jury and receive permission to pursue that option before fifteen (15) graduate hours have been earned or at the completion of VOI 562, whichever comes first.

**Master of Music degree in Performance.** All programs require completions of 6 credits in two core courses (Music 501, 502); 17-19 credits in one of the areas of concentration described below; 3-4 credits of unrestricted electives; 2 credits in recital (Music 697), except in the Accompanying Concentration which does not require Music 697, Recital, but substitutes Recital Accompanying of three full recitals without credit.

**Piano Concentration:** 10 credits in individual lessons at the advanced level, Piano 565-569; 6 credits in keyboard literature chosen from Music 601, 602, 603, 604; 2-3 credits chosen from Music 546, 551, 590.

**Accompanying Concentration:** 4 credits in individual lessons at the advanced level. Piano 570, 571; 8 credits of Ensemble, Piano 574, 575; 9 credits in cognate courses, Music 572, 573, 576, 577; 3 credits in electives chosen from MAV 558, MUS 637, 552, 553, or any curriculum in the college.

**Organ Concentration:** 10 credits in individual lessons at the advanced level, Organ 565-69; 6 credits in organ literature; 3 credits chosen from Organ 551, Organ 590.

**Voice Concentration:** 10 credits in individual lessons at the advanced level, Voice 565-569; 7-9 credits chosen from Music 546, 554, 555, 556, 557, 591, 605, 606, 628, 632, 654; 2-3 credits chosen from Music 556 or 557, 606, 632, 654.

**Instrumental Concentration:** 10 credits in individual lessons at the advanced level, Music 565-569; 2 credits in ensemble, Music 546; 5-6 credits chosen from Music 556 or 557, 592, 600, 607, 608, 609, 650, 651.

**Master of Music degree in Theory or Composition.** Both programs require completion of 6 credits in two core courses (Music 501, 502); 17-18 credits in one of the areas of concentration described below; 3-4 credits of unrestricted electives; 3-4 credits in research (Music 692 and 699, Thesis, for Theory; Composition 699 for Composition).

**Theory Concentration:** 11 credits in required courses, including Music 653, 654, one course in advanced composition chosen from Music 656-658, 663; 6 credits in directed electives chosen from Music 550, 595, 651, 652, 655, 659, 660.

**Composition Concentration:** 12 credits in required courses, Music 651, 654, 656, 657; 5-6 credits in directed electives chosen from Music 595, 652, 653, 655, 658, 660, 663.

**Master of Arts degree in Music History and Literature.** 15 credits in five courses offered by the Department of Music History and Literature. (Three must be chosen from Music 631-636); 6 credits in research and bibliography courses; 9 credits in electives (Music and related disciplines).

## COURSE DESCRIPTIONS

### MUSIC

Symbol: MUS (unless otherwise shown)

**500 Methods and Materials of Research (3)** Basic techniques and procedures. Major types of research. Methods for locating, evaluating, and interpreting evidence. Preparation of a research outline.

**501 Aspects of Musical Style I (3)** Selected master works from the Middle Ages through the late 18th century. The influence of these works on musical thinking, historical, and technical.

**502 Aspects of Musical Style II (3)** Selected master works of the 19th and 20th centuries.

**503 Philosophical Foundations of Music Education (3)** Historical and philosophical foundations of music education. Application of principles of education to music. Major emphasis on development of a philosophy of the discipline.

**510 Current Trends in Music Education (3)** Present practices and emerging developments in music education.

**511 Vitalizing Music in the Elementary School (3)** Study of song series, instruments, and materials in current use in the elementary classroom.

**512 Teaching Music Listening at the Elementary Level (3)** For the elementary classroom and music teacher. Teaching elements of music and musical concepts, and developing aesthetic sensitivity through listening.

**513 Music Education in the Elementary School (3)** For the music educator. Problems, proce-

dures, and materials in the elementary school classroom. PREREQ: elementary music methods, teaching experience.

**514 Music Education in the Secondary School (3)** The music curriculum in the secondary school. Emphasis on conceptual learning, structured curriculum, independent study, esthetic experience and current materials. PREREQ: secondary school music methods, teaching experience.

**516 Administration and Supervision of School Music (3)** Administrative problems, curricular content and scheduling, in-service training of teachers, and specialized supervisory techniques for the music curriculum. PREREQ: teaching experience.

**517 Psychology of Music (3)** In-depth study of learning theories as related to music education and the nature of music.

**520 Classroom Materials for Music Programs (3)** Evaluation of the newest materials for music education.

**522 Music in the Middle School (3)** Review and critical analysis of music education in the middle-school: philosophies; curriculum; practices; personnel.

**523 Elementary Orff Techniques (3)** Basic Orff melodic and rhythmic techniques for the elementary classroom. Emphasis on developing concepts for individual teaching situations.

**524 Intermediate Orff Techniques (3)** Continuation of MUS 523. PREREQ: MUS 523 or Level 1 Orff Certificate.

**525 Elementary Kodaly Techniques (3)** Basic Kodaly techniques. Adaptation of teaching procedures for elementary school: rhythm; melody; movement; improvisation.

**526 Intermediate Kodaly Techniques (3)** Continuation of MUS 525. PREREQ: MUS 525.

**527 Projects to Individualize Music Classes (3)** Evaluating learners and prescribing meaningful forms of instruction for individuals and small groups.

**528 Music in Special Education (3)** Characteristics of special pupils; adaptation of teaching techniques; materials; curriculum.

**529 Instrument Repairs (3)** For instrumental teachers. Stresses proper instrument care, preventive maintenance, adjustments, and minor repairs possible with basic equipment and minimal mechanical skill.

**530 Classroom Guitar Pedagogy (3)** Analysis and experience in pedagogical approaches for the music classroom teacher where guitar is part of the music curriculum. Exploration of alternative approaches used in teaching large or small groups. Performance at indicated levels commensurate with ability in solo and/or ensemble.

**532 Related-Arts in Music Education (3)** Historical background of the related-arts movement. Principles of related-arts teaching related to musical elements, forms and styles, with appropriate teaching techniques at specified grade levels. Materials for school music programs; basal music series, other texts and literature, resources in related arts. Demonstration lessons and unit planning.

**536-539 Workshops (1-3)** Participation-oriented workshops designed to meet specific needs in music and music education and to develop skills for practical application in school and professional settings. (Prefixes: MWB Marching Band Techniques; MWE Music Education; MWH Handbells; MWJ Jazz Studies; MWK Kodaly; MWO Orff; MWP Piano; MWT Theatre.)

**542-45 Chamber Chorus, Choir, Concert Choir, Concert Band, Marching Band, Symphonic Band, Symphony Orchestra, Wind Ensemble (1)** (Prefixes: CCH Concert Choir, CHC Chamber Choir, CHO Chorus, CBA Concert Band, MAB Marching Band, SBA Symphonic Band, SYO Symphony Orchestra, WIN Wind Ensemble)

Participation in preparation of programs for concert performance. PREREQ: previous performance in appropriate organizations and/or admission by audition.

**546 Ensembles in Piano, Voice, Woodwinds, Brass, Strings, Percussion, or Mixed (2)** (Prefixes: KEN Keyboard, VEN Vocal, PEN Percus-

sion, BEN Brass, WEN Woodwind, SEN String, MEN Mixed)

Study and performance in selected ensembles arranged to the specific needs of the students. PREREQ: performance ability.

**548-49 Class Lessons in Woodwinds, Brass, Percussion, or Strings (2)** (Prefixes: BRC Brass, STC Strings, PEC Percussion, WWC Woodwinds)

Teaching techniques for each instrumental family.

**550 Advanced Keyboard Harmony (3)** Use of the piano as a tool in the teaching of music theory. Includes chorale harmonization, examples of the traditional sonorities, contrapuntal exercises, "free style" improvisation, and use of contemporary techniques.

**552 Vocal Diction I (3)** English, Italian, and Latin diction. A laboratory course to establish correct pronunciation in singing. The phonetics of these languages are used in selected song repertoire.

**553 Vocal Diction II (3)** French and German diction. A laboratory course, as described in MUS 552. MUS 552 is not prerequisite.

**554-55 Opera Workshop (3)** Techniques of producing musical plays. Course study of music and acting only. Preparation of roles, coaching, conducting rehearsals. The workshop experience may lead to a public performance of the material studied.

**556-57 Advanced Conducting (2)** Study and application of techniques. Ability is developed to read and conduct full scores of major works for large groups. CCO, Choral, ICO, Instrumental. PREREQ: undergraduate conducting.

**558 Master Classes in Piano, Organ, Voice, Woodwinds, Brass, Percussion, or Strings (1-2)** (Prefixes: MAK Keyboard, MAC Organ, MAV Voice, MAB Brass, MAP Percussion, MAS Strings, MAW Woodwinds)

Discussion and performance of literature in the repertoire.

**559-60 Individual Lessons at the Minor Level in Piano, Organ, Voice, Woodwinds, Brass, Percussion, or Strings (1)** Individual half-hour lessons in all areas.\* once weekly. An elective course for all graduate students.

**561-64 Individual Lessons at the Major Level in Piano, Organ, Voice, Woodwinds, Brass, Percussion, or Strings (1-2)** Individual half-hour lessons in all areas.\* Continued study in the development of repertoire and performing skills. Stu-

\* Areas of performance in applied music: piano, organ, voice, flute, oboe, English horn, clarinet, bassoon, French horn, saxophone, trumpet, trombone, baritone, tuba, violin, viola, cello, bass, percussion.

dents may be given permission to register for two course numbers in the same semester, earning the second credit by doing additional outside work and performing in a recital. PREREQ: completion of the performance major requirements at the undergraduate level or admission by audition.

**565-69 Individual Lessons at the Advanced Level in Piano, Organ, Voice, Woodwinds, Brass, Percussion or Strings (2-4)** Individual half-hour lessons in all areas,\* once weekly. Advanced studies leading to a full-length recital at the master's level. PREREQ: completion of the performance major requirements for the Bachelor of Music degree and/or admission by audition.

**570-71 Individual Lessons at the Advanced Level for Accompanists (2)** Individual half-hour lessons once a week to train pianists in playing accompaniments. Prerequisite: admission to the M.M. concentration in Accompanying.

**572-73 Accompanying I, Vocal; II, Instrumental (3)** Survey of accompanying literature: (I) art songs, recitatives, cantata, opera, and oratorio arias; (II) strings, winds, and brass. Performance and reading in class.

**574-75 Ensemble I, II (4)** Accompanying in teaching studios for large groups (choruses), for various ensembles (trios, quartets), and for faculty, BM, MM, General, and Senior student recitals.

**576 Harpsichord and Continuo Realization (1)** An introduction to harpsichord playing and the principles of continuo realization.

**577 Transposition and Score Reading (2)** Training in score reading and transposition at the keyboard.

**590 Piano Pedagogy (3)** Principles and procedures of piano teaching at all levels. Opportunity to teach and prepare criticism. PREREQ: teaching experience or evidence of sufficient pianistic background.

**591 Vocal Pedagogy (3)** Principles and techniques of teaching voice. Materials and procedures for improving tone quality of the individual and the choral group.

**592 Marching Band Techniques and Materials (3)** Organization, music materials and procedures for improving tone quality of the individual and the choral group.

**594-595 Pedagogy of Music Theory I-II (3)(3)** Techniques and materials for teaching music theory. 594 is not prerequisite to 595.

**600 Instrumental Literature (3)** The philosophic, historical, and practical basis of instrumental programming. Survey of solo, ensemble, band, and orchestral literature.

**601 Baroque Keyboard Literature (3)** The Renaissance through development of variation form and dance suite. Emphasis on performance practices, realizing ornament signs and figured basses; transferral to the modern piano; in-depth study of works of Handel, J. S. Bach, and D. Scarlatti. Some student performance required. PREREQ: MUS 224 (Keyboard Literature I) or equivalent.

**602 Classical Piano Literature (3)** Literature for the early piano (1750-1830). Origin and development of the sonata; performance practices of homophonic style. Music of the sons of Bach, Haydn, Mozart, Beethoven, and Schubert. Sound and structure of the early piano. Some student performance required. PREREQ: MUS 224 (Keyboard Literature I) or equivalent.

**603 Romantic Piano Literature (3)** Analysis of piano styles of Chopin, Mendelssohn, Schumann, Liszt, Brahms, Faure, Mussorgsky, Tchaikovsky, Rachmaninoff, Granados, Albeniz. Performance practices. The virtuoso etude and problems of technical execution. Some student performance required. PREREQ: MUS 225 (Keyboard Literature II) or equivalent.

**604 Twentieth Century Piano Literature (3)** Seminal works and styles of this century. Debussy, Ravel, Prokofiev, Hindemith, Schoenberg, Bartok, American composers. Some student performance required. PREREQ: MUS 213 (Theory of Music IV) or equivalent.

**605 Vocal Literature (3)** Classic song literature, lieder, and modern art songs. Illustrated through performance by the instructor and members of the class and by scores and recordings.

**606 Choral Literature (3)** Representative examples of choral music from the various periods. Research in a selected phase of the literature required.

**607 Woodwind Literature (3)** A comprehensive evaluation of materials for solos and ensembles through performance by the instructor and members of the class and by use of scores and recordings.

**608 Brass Literature (3)** A survey of solo, ensemble, and orchestral music for brass instruments, including consideration of teaching materials.

**609 String Literature (3)** Evaluation of materials for solos and ensembles through performance by the instructor and members of the class and by use of scores and recordings.

**610 African and Afro-American Music (3)** Folk music, spirituals, work songs, field hollers, blues, ragtime, jazz, gospel songs, soul music, rock and roll. Includes some art music by black composers. PREREQ: an introductory music course.

**611 The Piano Concerto (3)** A chronological presentation of the development of the piano concerto; performance problems and practices will be emphasized. J. S. Bach to present.

**622 Music Criticism and Aesthetics (3)** The nature of music, including philosophies of its meaning. Study of music criticism, past and present. Exercises in reviewing concerts and recordings. An elective course for all students.

**623 Bach and His Works (3)** The life of J. S. Bach; works for organ, keyboard, and other instruments; cantatas and larger choral works.

**624 Performance Practice I (3)** Historical and analytical consideration of the special problems in stylistic realization and performance of music of the Middle Ages and Renaissance (c. 900-1600). PREREQ: Music 221 and 222 or permission of the instructor.

**625 Performance Practice II (3)** Historical and analytical consideration of the special problems in stylistic realization and performance of music of the Baroque, Classic, and early Romantic eras (c. 1600-1850). PREREQ: Music 221 and 222 or permission of the instructor.

**626 History of Chamber Music (3)** The history, forms, and changing styles and media of chamber music from the 16th century to the present. Principal composers are studied.

**627 History of Symphonic Music (3)** How the symphony orchestra developed from the Baroque Period to the present in its function, literature, instrumentation, and performance practices.

**628 History of the Opera (3)** The composers and their major contributions to the various schools of opera.

**629 History of Music in the United States (3)** Analysis of music and musical trends in America from the Pilgrims to the present.

**630 Folk and Non-Western Music (3)** A study of the music of non-Western cultures and of Western folk music, along with an introduction to ethnomusicology and its research techniques.

**631 Music of the Medieval Period (3)** Development of plain song and secular monody and beginnings and early history of polyphony to the 14th century. Consideration of contemporary trends in the visual arts, history, and literature.

**632 Music of the Renaissance Period (3)** Sacred and secular music in the Age of Dufay; changing forms and styles through the music of the Franco-Flemish Groups; the frottola and related forms; Palestrina and his contemporaries. Brief consideration of contemporary trends in the visual arts, history, and literature.

**633 Music of the Baroque Period (3)** Styles and forms of Baroque repertoire; contributions of the

major composers; role of music and musicians in the society of the period.

**634 The Classical Age in Music (3)** Changing styles and forms in: the sons of J. S. Bach; the Viennese pre-classicists; the Mannheim School; opera; Joseph and Michael Haydn, Mozart, and their contemporaries; and the early works of Beethoven.

**635 Music in the Romantic Era (3)** Historical developments during the Romantic Period (circa 1800-1900). Analysis of changes and trends; comparative aspects of new forms.

**636 Contemporary Music (3)** Chronological survey of 20th-century music. Development of styles. Technical aspects of changes occurring in melody, rhythm, orchestration, texture, tonality, and form.

**638 History of Jazz (3)** A survey of the history of jazz, including representative performers and their music.

**650 Advanced Band Arranging (3)** Emphasis on arranging for school bands. Consideration given to bands with inexperienced performers and limited instrumentation. PREREQ: teaching experience and a knowledge of orchestration.

**651 Advanced Orchestration (3)** Original composition of arrangement for orchestra. PREREQ: a knowledge of the instruments of the orchestra and experience in their use.

**652 Advanced Musical Form (3)** A detailed study of musical form, with emphasis on modifications of sonata form; vocal and instrumental forms of Baroque music, and forms which are unique.

**653 Advanced Counterpoint (3)** Tonal counterpoint. Invention, canon, chorale forms, invertible counterpoint, and fugue. PREREQ: Counterpoint I at the undergraduate level.

**654 Modal Counterpoint (3)** Use of modes, musica ficta, and cadences, in 16th-century music. Experience in imitation in two parts, using all note values; double counterpoint; pronunciation and setting of Latin texts.

**655 Modal Counterpoint II (3)** Continuation of MUS 654. Writing in three and more voices. PREREQ: MUS 654.

**656-58 Advanced Composition (3)** Free composition in larger forms for ensembles, solo voice and chorus, chamber groups, and orchestra. PREREQ: MUS 213 (Theory of Music IV) or equivalent.

**660 Electronic Music (3)** Materials and techniques of electronic music and their use in composition. Laboratory experience in the composition of electronic music. PREREQ: MUS 412 (Composition I) or equivalent.

**661 Jazz Practices (2-3)** Jazz history, writing, and performance. Survey of basic jazz literature; fundamental techniques in arranging and improvising. PREREQ: MUS 213 (Theory of Music IV) or equivalent.

**662 Serialism and Atonality (3)** Compositional procedures and theoretical concepts in atonal and serial work of Schoenberg, Berg, Webern, Bartok, Stravinsky, and more recent composers. PREREQ: MUS 213 (Theory of Music IV) or equivalent.

**663 Seminar in Music Theory (2)** Intensive work in selected areas of music theory. Guidance in individual projects leading to significant current developments in theory. PREREQ: permission of the chairperson of the Department of Theory and Composition.

**664 Performance Practices in Contemporary Music (3)** A course (1) in which the participants will study technical problems of understanding new notation (e.g. graphic scores, proportional scores, multiphonics, microtones, metric modulation, asymmetrical rhythm groupings, prose scores, etc.) and will develop a reasonable facility in performing scores which include these techniques. (2) which will provide an ensemble for which composition students may compose, and (3) which will establish an ensemble which may publicly perform new music.

**665 Acoustics of Music (3)** The study of sound; its production, transmission, and reception. Musical instruments, the acoustics of rooms, and the physical basis of scales.

**680 Special Subjects Seminar (1-3)** Significant

topics presented by faculty members of visiting lecturers. Designed to meet specific needs of the seminar group.

**681-83 Independent Study in Music (1)(2)(3)** Individual research under the guidance of a faculty member. PREREQ: permission of instructor.

**690 Introduction to Research in Music History (3)** Bibliographical materials and research methods. Ability to read at least one foreign language required.

**691-92 Research Seminar in Music (2)(1)** A research proposal with supporting procedures is developed. Guidance in individual research topics, with tutorial assistance in form and style of research writing.

**696 Recital (1)** A shared (half) recital open to candidates for the Master of Music degree (Music Education concentration). In lieu of research report. Program notes required. PREREQ: approval by committee examination.

**697 Recital (2)** A full public recital, demonstrating an understanding of various performance styles and ability to perform literature from several periods. Required of candidates for the Master of Music in applied music. PREREQ: approval by committee examination.

**698 Research Report (1)**

**COM 699 Musical Composition (3)** An advanced composition of significant proportion, demonstrating skill in creative writing for a chosen medium.

**699 Thesis in Music Education, Theory, or History and Literature (3)**



# Philosophy

Dr. Claghorn, *Chairperson and Coordinator of Graduate Studies*

## PROFESSORS

George S. Claghorn, Ph.D., *University of Pennsylvania*

W. Stephen Croddy, Ph.D., *Brown University*

Walter J. Hipple, Ph.D., *University of Chicago*; Litt. D, *Shimer College*

Thomas W. Platt, Ph.D., *University of Pennsylvania*

Stanley Riukas, Ph.D., *New York University*

Paul A. Streveler, Ph.D., *University of Wisconsin*

Frederick R. Struckmeyer, Ph.D., *Boston University*

The Department of Philosophy has suspended until further notice the offering of its Master of Arts degree. During this suspension, no new students will be admitted to the department as degree candidates. The department, however, will continue to offer some graduate courses, which are open to all graduate students. The following undergraduate courses may also be taken for graduate credit, when properly approved: PHI 483, Philosophy of History, and PHI 488, Theories of Knowledge.

## COURSE DESCRIPTIONS

### PHILOSOPHY

Symbol: PHI

**506 Meaning in Language (also LIN 506) (3)** A discussion of topics having to do with meaning in everyday oral communication.

**512 Ethical Theories (3)** Examination of various ethical theories with practical applications to such problems as authority, punishment, rights, marriage, and race.

**513 Aesthetic Theories (3)** History of aesthetics, as seen in classic interpretations. Origins of art, psychological and sociological; the role of art works in the enrichment of life.

**514 Philosophy of Religion (3)** Dominant trends in religious philosophy of the Western world. Religious language, reason and faith, science, the nature of man, the existence of God, and mysticism.

**515 Existentialism (3)** Background and themes of current existentialism, as reflected in Kierkegaard, Jaspers, Marcel, Heidegger, and Sartre. Evaluation of existentialism and its impact on contemporary literature, drama, art, and society.

**520 Philosophy of Mind (3)** The human mind, according to representative views. Presuppositions and implications, both scientific and philosophic, traced and analyzed. The mind-body problem; perception; memory; and the implications of depth psychology.

**522 Philosophy of Science (also SCI 522) (3)**

The course begins with case studies in science and derives general principles from them. Scientific law, analogy, models, variant theories, confirmation, and interpretation.

**523 Philosophy of Language (also LIN 523) (3)** Problems of language and oral communication, with emphasis on problems of reference.

**530 American Philosophy (3)** American views of man, society, and the universe, from colonial times to the Twentieth Century.

**531 Oriental Philosophy (3)** Central figures and classic teachings of Eastern philosophy and religion: Islam, Hinduism, Buddhism, Confucianism, Taoism, and Shintoism; naturalistic and humanistic elements of decisive influence on the culture of the Orient.

**536 Symbolic Logic (3)** Basic principles and methods of symbolic logic. Practice in determining validity of sentential and quantificational arguments. The algebra of classes.

**590 Independent Studies in Philosophy (3)**

**599 Philosophic Concepts and Systems (3)** Basic concepts of the philosophic enterprise: form, matter, the categories, cause, and purpose. Relation of premises to method and conclusions. Rival theories are compared for justification and adequacy.

**610 Thesis (3-6)**

**640 Seminar (3)** Study and evaluation of the major works of one philosopher, such as Plato, Aquinas, Kant, or Wittgenstein.

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# Physical Education

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Mr. Charters, *Chairperson*

Dr. Cochran, *Assistant Chairperson - Professional Foundations and Sports Studies*

Ms. Margerum, *Coordinator - Field Experiences*

Mr. Trezise, *Assistant Chairperson - Division of Leisure*

Mr. Jones, *Assistant Chairperson - S.D.C.*

## PROFESSORS

Norman A. Cochran, Ed.D., *University of Maryland*

Phillip B. Donley, M.S., *West Virginia University; Certificate in Therapy, D.T., Watson School of Psychiatry*

Ralph H. Kapilian, Ph.D., *University of Illinois*

Monita Lank, Ph.D., *University of Iowa*

John M. Lowe, Jr., Ed.D., *University of Toledo*

Edward N. Norris, Ed.D., *Temple University*

Neil A. Šerpico, Ed.D., *University of Alabama*

Ronald B. Woods., Ph.D., *Temple University*

Edwin L. Youmans, Ph.D., *University of Iowa*

## ASSOCIATE PROFESSORS

David S. Charters, M.Ed., *Temple University*

Melvin M. Lorback, M.S., *Pennsylvania State University*

Jack Trezise, M.Ed., *University of Pittsburgh*

Lloyd C. Wilkinson, M.A., *Villanova University*

Richard B. Yoder, M.A., *Villanova University*

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The Department of Physical Education offers degree programs leading to the Master of Education and Master of Science in Health and Physical Education. The Master of Education enriches academic preparation for teaching in the public schools and/or first-level employment in the various professions related to health and physical education. The Master of Science is designed primarily to meet individual needs of the graduate student who wishes to pursue graduate work beyond the master's degree or a career in research. The M.S. may also serve to prepare personnel for staff positions in education, government, and industry.

Certification programs in Driver Education and Safe Living and Coaching are also offered by the Department of Physical Education.

The Department of Physical Education also offers graduate assistantships.

## COMMUNICATING WITH THE SCHOOL

Communications regarding the graduate program and graduate assistantships in health and physical education should be addressed to: Chairperson, Physical Education Department, West Chester State College, West Chester, PA 19380.

## THE PROFESSOR RUSSELL STURZEBECKER SCHOLARSHIP

The Graduate Division in the School of Health Sciences in the Department of Physical Education administers the Professor Russell Sturzebecker Scholarship. Through the kind generosity of Mr. John F. Unruh a \$100 award is made each semester to a "worthy and needy" graduate student in health and physical education. The award is donated by Mr. Unruh in honor of Professor Sturzebecker.

The recipient must be working full time in the field of health and physical education and must be a part-time student at West Chester State College working towards a master's degree in his or her professional field.

Graduate students who meet the above criteria are invited to submit a letter of application for the scholarship along with a resume of their professional and academic status. These documents should be submitted to Chairperson, Department of Physical Education on or before December 15th for the first semester award and on or before March 15th for the second semester.

### THE GRADUATE SCHOLARSHIP

The Graduate Division, Department of Physical Education administers a graduate scholarship. The amount of money awarded may vary somewhat from year to year depending on the funds available, it is anticipated that the award will be approximately \$300 each year which is the amount available for the 1981-1982 academic year.

Selection criteria include 1) scholarship; 2) citizenship and character; 3) leadership; 4) need; 5) ability in and/or contribution to specific areas of health or physical education.

Application forms are available from the office of the Chairperson of the Department of Physical Education, Room 320, South Campus. Deadline for receipt of applications is October 30, 1982 for the 1982-83 award.

### MASTER OF EDUCATION PROGRAM

**Admission to the M.Ed. Program.** In addition to meeting the basic requirements of the college given under admissions, applicants must present a baccalaureate degree attained in the field of health and physical education or equivalent preparation in a related field.

**Admission to M.Ed. Degree Candidacy.** Within the 15 semester hours of precandidacy, majors in health and physical education must complete any four of HPE 600, HPE 601, HPE 602, HED 620 or PED 681 with an average of 2.75.

#### Requirements for the M.Ed. Degree

1. Satisfactory completion of one of the curricula shown below, with an average of 2.75 and an average of 3.00 in the respective major field.
2. Satisfactory performance on the written and/or oral comprehensive examinations.
3. Satisfactory Completion of a Research Report.

### MASTER OF SCIENCE PROGRAM

**Admission to the M.S. Program.** Applicants must meet the basic requirements of the college, given under Admissions, and must present a baccalaureate degree attained in their anticipated major area of health or health and physical education or equivalent preparation in a related field. They must also present the results of the Aptitude Section of the Graduate Record Examination which are to be used for diagnostic and program planning purposes.

**Admission to the M.S. Degree Candidacy.** Within the 15 semester hours of pre-candidacy majors in health and physical education must complete any three of HPE 600, HPE 601, HPE 602 or PED 681 with a minimum quality point average for these and all other courses taken during pre-candidacy of 3.00.

#### Requirements for the M.S. Degree

1. Satisfactory completion of one of the curricula shown below with an overall average of 3.00.

2. Oral defense of the thesis prospectus/proposal and a final oral on the completion of the thesis.
3. Satisfactory performance on the written and/or oral comprehensive examinations.

### Comprehensive Examination

Effective as of January 1, 1977 the Comprehensive Examination for graduate students in health and physical education will be administered twice a year - in March and October. Each examination will consist of an elective course portion to be given for two hours on a Tuesday and the required course portion to be given for a two hour period on the following Thursday.

Students desiring to take the examination should have been admitted to degree candidacy and completed all required course work or be currently enrolled and the majority of their elective requirements. A letter of intent to take the comprehensive examination should be filed with the Chairperson, Department of Physical Education, School of Health Sciences, West Chester State College, West Chester, PA 19380. Letters of intent should be filed by February 15th or September 15th for the March or October examination respectively.

Upon receipt of the letter of intent and with the approval of the Chairperson, students will be sent a letter setting forth the details of time and place of the examination and a set of sample questions.

Fall Semester - 1982  
Tuesday, October 19th  
Thursday, October 21st

Spring Semester - 1983  
Tuesday, March 22nd  
Thursday, March 24th

## MASTER OF EDUCATION IN HEALTH AND PHYSICAL EDUCATION

### 34 Semester Hours

The M.Ed. program is composed of a required area of 22 semester hours, including a research project (4 s.h.) and an elective area of 12 hours planned under advisement. Required courses are Educational Foundations (EDF 510) and HPE 600, 601, 602, PED 681 and HEA 620.

The research project consists of two seminars (HPE 606 and 607) which are taken following the successful completion of Methods and Materials of Research in Health, Physical Education, and Recreation (HPE 600).

## MASTER OF SCIENCE IN HEALTH AND PHYSICAL EDUCATION

### 30 Semester Hours

The Master of Science is attained through successful completion of an area of concentration, a component of electives, and the thesis. Required for the concentration are HPE 600, 601, 602 and PED 681. Before undertaking work on the thesis (HPE 610) the candidate must complete a thesis seminar (HPE 608). The elective area is developed under advisement and must include 7-10 credits produced from the school's curriculum in either the scientific area or the social and cultural areas. The remaining 3-6 credits should be used to fortify the student's individualized program, and, with the permission of the Department Chairperson, may be selected from related fields.

## CERTIFICATION PROGRAM IN DRIVER EDUCATION AND SAFE LIVING

(Highway Safety and General Safety Education)  
Richard B. Yoder, Coordinator

A teacher's certificate may be extended to include education for safe living (highway safety and general safety education) by completing 12 semester hours of course work in the Department of Physical Education. Six of these hours must be met by History and Philosophy of

Safety Education and Principles of Accident Prevention (PED 660) and Seminar in the Four-Phase Program of Driver Education (PED 561). The remaining two courses are chosen, under advisement by the coordinator, from PED 661, 662, 663 and 560.

## COURSE DESCRIPTIONS

### HEALTH AND PHYSICAL EDUCATION

Symbol: HPE

**500 Contemporary Problems in Health, Physical Education, and Recreation** (3) Problems in teaching health, physical education, and recreation; in-service aspects; factors and variables which influence solutions of these problems.

**600 Methods and Materials of Research in Health and Physical Education** (2) Techniques of research in education applied to the field of health, physical education, and recreation.

**601 Techniques of Measurements and Evaluation in Health and Physical Education** (3) Statistical and evaluative procedures and their application to health, physical education, and recreation.

**602 Historical and Philosophical Bases for Health and Physical Education** (3) Past and contemporary philosophies, principles, and objectives in health, physical education, and recreation; current trends.

**604 Administration and Supervisory Practices in Health, Physical Education, Recreation, and Athletics** (3) Nature of the positions of directors or supervisors of physical education, recreation, and athletics. Job specifications; operational principles and procedures.

**605 Curriculum in Health and Physical Education** (3) Trends in health and physical education curricula at the elementary, secondary, and college levels. Surveys, reports, and analyses of curriculum practices.

**606 Research Project Seminar I** (2) The M.Ed. candidate selects a problem for a research report, reviews the literature, develops procedures, and collects appropriate data. Students are expected to complete the first three chapters of the research report during Seminar I, and will continue to register for this course each semester and summer session until this requirement is met. They then register in Seminar II.

**607 Research Project Seminar II** (2) M.Ed. candidates must complete their research reports in this seminar (see HPE 606). They continue to register for the seminar until the report is completed. Same as HPE 606.

**608 Thesis Seminar** (3) A course for the M.S. candidate, who selects a topic, reviews the literature, develops procedures, and prepares a proposal acceptable to the thesis committee. Candidates continue to register for the seminar until

they have met requirements. They then register for HPE 610.

**609 Independent Study and Special Projects** (1-3) Research projects, seminar papers, reports of special conferences, and reading in health and physical education. PREREQ: approval of chairperson prior to the semester registered.

**610 Thesis** (3) Undertaken upon completion of HPE 608. If the thesis is not completed in the first semester the student must register again and thereafter in 610 until the thesis has been accepted by the committee.

### PHYSICAL EDUCATION

Symbol: PED

**550 Elementary Physical Education Workshop** (3) Orientation for the teaching of elementary physical education. Principles and practices; appropriate activities for various grade levels.

**551 Elementary Physical Education Recreation Music Workshop** (2) Leading and teaching rhythmic activities and singing in elementary physical education and recreation. Fundamental level. Instruction programmed music textbook; piano and guitar chords. Creating and teaching recreational and singing games.

**552 Learning on The Move** (3) Movement education and perceptual motor theory. Activities to guide children to maximal development potential.

**560 Seminar in Motorcycle Safety Education** (3) Curricular design, administration, and operational techniques of motorcycle safety programs. Laboratory experiences.

**561 Seminar in the Four-Phase Program of Driver Education** (3) In-service experience for driver-education teachers in classroom. BTW, multi-car method, and simulation.

**570 Leadership in Outdoor Adventure Education** (3) This program is designed to provide instruction which would help persons interested in understanding and adapting "Outward Bound" philosophy, educational methodology, process, and activities for use in outdoor education and physical education programs.

**577 Summer Dance Workshop/Effective Projection in Theater Dance** (1) Experience in dance as a performing art: lighting, set design, costume. Original compositions are staged. The workshop combines various dance techniques.

**580 Sports Psychology** (3) Behavior of individ-

uals participating in play, games and sports. Why people behave the way they do in athletics and physical activity. Risk-taking personality and behavior under stress.

**581 Adapted Physical Education (3)** Techniques for a program of adapted physical education in the public school. Application of activities to benefit the child with a temporary or permanent disability.

**582 Modern Principles of Athletic Training (3)** A course for the physical educator and/or coach. Injuries which occur in class, practice, and game situations; preventive taping and wrapping; immediate first-aid procedures; relations with the medical profession.

**585 Mechanical Analysis of Motor Skills (3)** Fundamental principles of mechanics, applied to teaching physical education and athletic activities.

**586 The Olympic Games—Their Influences on the Ancient and Contemporary Worlds (3)** Ancient and modern games and their historical and cultural significance. Sociological and political implications of the modern games.

**650 The Child and Physical Education (3)** Contributions of physical education to the child's physical, social, emotional, and intellectual growth and to his developmental needs and interests. The influences of various activities on growth and development.

**660 History and Philosophy of Safety Education and Principles of Accident Prevention (3)** The safety movement in the United States and other countries. Place of safety education in modern living, philosophies of safety-education leaders; accident causation and prevention; their research implications. Background for administering school, civil defense, and emergency safety programs.

**661 Contemporary Practices and Program Evaluation in Safety Education (3)** Current practices, evaluation of programs, and research of current literature in safety education. Techniques for selecting, constructing, and utilizing instruments for evaluating safety-education programs. Problem-solving projects.

**662 Problems in Traffic and Driver Education (3)** Contemporary curriculum and current practices in driver and traffic education, enforcement of traffic laws and regulations, engineering problems. Problem-solving projects.

**663 Psychology in Safety Education and Accident Prevention (3)** Effects of unconscious determinism, habits, attitudes, individual adjustment, motivation, and personality on accident causation. Research implications explored.

**680 Scientific Principles of Coaching (3)** Recent trends in theories and techniques of teaching sports. Mechanical principles of efficient movement. Research related to competitive performance. Specialists serve as guest panelists.

**681 Scientific Bases for Physical Education (3)** Scientific data related to physical education activities. Scientific approaches to motor learning and development of skill PREREQ: anatomy, physiology, applies physiology, or equivalents.

**682 Biodynamics of Human Performance (3)** Physiology of the active, vital organism. Scientific findings concerning human performance, especially under stress and accompanying physiological adjustments.

**683 Comparative Physical Education (3)** Comparative study of programs outside the United States. Current philosophies, principles, and practices.

**684 Sport and Society (3)** Using a historical context, a model of the role of sport in a variety of societal environments will be constructed. Emphasis will be placed on the view of sport as a form of human expression that is reflective of the current value structure or a particular society.

## SERVICE COURSES

The following courses are open to students in all curricula, with no prerequisite in health and/or physical education required:

HPE 605: HEA 620; PED 550; 551, 552, 560, 561, 570, 577, 580, 581, 585; 650, 660, 661, 662, 663, 680, 682.

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# Physical Science Program

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(Interdepartmental)

*Program Coordinators:* Dr. Medeiros (Chemistry), Dr. Greenberg (Geology and Astronomy), Dr. Smith (Physics)

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A degree program designed primarily for those who teach the physical sciences in high school, junior high school, or the middle school is given on an interdepartmental basis through the Departments of Chemistry, Geology and Astronomy, and Physics.

Leading to the Master of Arts degree, the program makes it possible for students to plan a sequence of studies meeting their individual needs. This may be accomplished either through selections from each of the disciplines or by concentrating in one of them.

## Entrance Requirements

Students entering the program are normally expected to have a bachelor's degree in science or science education and, if teaching in the public schools, a valid teaching certificate.

## MASTER OF ARTS IN PHYSICAL SCIENCE

### 34 Semester Hours

Science education requirements for the program must be met with ESS 500—Modern Trends in Science Education and PHS 502—Modern Trends in Teaching Physical Science. A science elective area of at least 29 semester hours is developed, under advisement, from selections in chemistry, geology and astronomy, marine science, and physics. It is also possible to concentrate the elective area in either chemistry, geology and astronomy, marine science, or physics.

At the end of the program the student must pass a comprehensive examination dealing with topics he or she would ordinarily teach.

For course offerings see Chemistry, Geology and Astronomy, Marine Science (see Biology), and Physics.

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# Physics

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Robert W. Hawkes, *Chairperson*

Frank A. Smith, Jr., *Coordinator of Graduate Studies*

## PROFESSORS

Russell K. Rickert, Ed.D., *New York University*

Frank A. Smith, Jr., Ed.D., *Temple University*

Stanley J. Yarosewicz, Ph.D., *Clarkson College of Technology*

## ASSOCIATE PROFESSORS

Robert W. Hawkes, M.S., *Pennsylvania State University*

Brent Kaplan, M.M.E., *New York University*

Harold L. Skelton, Ph.D., *University of Delaware*

The Department of Physics is one of three departments within the Faculty of Arts and Sciences offering a degree program leading to the Master of Arts in physical science. See *Physical Science Program*.

## COURSE DESCRIPTIONS

### PHYSICAL SCIENCE

Symbol: PHS

**500 Fundamentals of Radioisotope Techniques (3)** Biological, chemical, environmental, and physical effects of nuclear radiation. Radiation detection, instrumentation, and radio-tracer methodology. PREREQ: 1 year of college chemistry and 1 year of college physics.

**502 Modern Trends in Teaching Physical Science (2)** Materials and techniques in teaching physical science.

**504 Foundations of Physics (3)** Introduction to classical physics; vectors, mechanics, waves.

**505 Modern Concepts in Physics (3)** Introduction to electricity and magnetism, light, the nature of radiation, quantum and atomic physics, radioactivity. PREREQ: 504 or equivalent.

**507 Modern Trends in Physical Science (3)** Recent developments in physical science and their relation to secondary school science. Topics depend on backgrounds and needs of students.

**510 Electronics (3)** Laboratory oriented course. Review of A.C. and D.C. circuits, transistor circuits, introduction to integrated circuits, and digital electronics. PREREQ: general physics.

**511 Electricity (3)** Analysis of the principles of electricity and electromagnetism. PREREQ: differential and integral calculus, general physics.

**512 Mechanics (3)** Mathematical analysis of dynamics and statics. PREREQ: differential and integral calculus, general physics.

**513 Modern Physics (3)** Twentieth-century contributions and ideas, including special relativity, quantum theory, atomic structure, solid state structure. PREREQ: general physics.

**522 Optics (3)** A course in geometrical and physical optics. Topics include reflection and refraction, thin lenses, the optics of vision, interference, diffraction, polarization, and the laser.

**580 Energy Conversion and Utilization (3)** The energy crisis, fossil fuels, nuclear, solar, wind, and geothermal energy, societal implications, and applications.

**590 History of the Physical Sciences (3)** From Aristotelian concepts to modern scientific concepts.

**592 Independent Studies (1-3)**

**SCI 522 Philosophy of Science (see PHI 522)**

## PHYSICS

**515 Mathematical Physics I (3)** Topics of mathematics applied to problems in physics. Topics include ordinary differential equations, complex variables and hyperbolic functions, vector calculus, and numerical analysis.

**532 Nuclear Physics (3)** Basic nuclear properties, nuclear structure, alpha and beta decay, gamma radiation, nuclear reactions, particle accelerators, detection equipment, and elementary particles.

**533 Nuclear Physics Laboratory (1)** Ordinarily accompanies PHY 532. Preparation and handling of radioactive samples and examination of nuclear decay characteristics and reactions. With instructor's approval, PHY 533 may be elected without concurrent enrollment in PHY 532.

The Department of Physics has approved any 400 level physics course for graduate credit when scheduled with the approval of the student's advisor.

## Political Science—See Government and Planning

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# Psychology

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Mrs. Eldredge, *Chairperson*

Dr. Moore, *Assistant Chairperson, Coordinator of Graduate Studies*

## PROFESSORS

Jay L. Clark, Ph.D., *University of Minnesota*

Robert S. Means, Ph.D., *University of Alabama*

Walena C. Morse, Ph.D., *Bryn Mawr College*

Jack Porter, Ed.D., *Temple University*

Harold R. Sands, Ph.D., *Pennsylvania State University*

Edward D. Smith, Ed.D., *Pennsylvania State University*

## ASSOCIATE PROFESSORS

Bernard B. Cohen, Ph.D., *New York University*

Mary E. Crawford, Ph.D., *University of Delaware*

V. Krishna Kumar, Ph.D., *University of Wisconsin*

Samuel F. Moore, Ph.D., *University of Cincinnati*

Edward I. Pollak, Ph.D., *University of Connecticut*

Louis H. Porter, Ph.D., *Howard University*

Thomas Treadwell, Ed.D., *Temple University*

Elizabeth H. Eldredge, M.A., *Temple University*

Robert R. Shinehouse, M.A., *Temple University*

## ASSISTANT PROFESSOR

Leigh Shaffer, Ph.D., *Pennsylvania State University*

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Three degree programs are offered by the Department of Psychology. One leads to the Master of Arts in psychology; the second to the Master of Arts in social science with a concentration in psychology; the third to the Master of Science in Administration with a concentration in psychology.

### Admission Standards:

The minimum admission standards for the Department of Psychology are: undergraduate GPA—3.00; Psychology GPA for 3 or more courses—3.25; GRE or MAT scores in the 40th percentile or above; and three letters of reference. An interview with the Department Admissions Committee may also be required. Typically, admissions are made on a once-a-year basis with April 15 serving as the application deadline.

Admission to the Clinical and Industrial/Organizational concentrations is relatively competitive and only a limited number of the top applicants are accepted in these programs each year. Students accepted into the General concentration may, with the approval of the Graduate Committee, transfer to the Clinical concentration if they have achieved a 3.4 or better GPA in the five core courses (503-504, 505, 506 and 512) and no less than a 3.0 in any other courses taken while completing the core. Although not yet exactly defined, the transfer requirements for the Industrial/Organizational concentration will parallel in principle those outlined for transfer to the Clinical concentration, but the core involved is as follows: 503-504, 509, 524 and 445. Some few applicants who do not fully meet the outlined admission requirements may be admitted on a Provisional basis depending on their maturity, relevant work experiences, and academic promise.

### Degree Programs:

Several degree options are offered. The Master of Arts degree is offered with a concentration

in clinical psychology for students who wish to work in a mental health setting, or to continue their education at the doctoral level. A concentration in general psychology is offered for students interested in research, teaching, or in continuing their graduate studies. The concentration in industrial/organizational psychology is designed for students interested in employment in business or industry or for those who wish to continue their education at the doctoral level in a related area. Finally, two interdisciplinary programs are offered which are designed to meet the needs of students with more diversified interests.

### **MASTER OF SCIENCE IN ADMINISTRATION: Concentration in Psychology.**

The Department of Psychology participates in an interdisciplinary degree program leading to a Master of Science in Administration with a concentration in psychology. See ADMINISTRATION page 35.

### **MASTER OF ARTS IN PSYCHOLOGY**

#### **Concentration: Clinical Psychology**

40-42 Semester Hours

Students who wish training as clinical psychologists and who are admitted into this concentration take 36 semester hours of required courses. These are PSY 503-504-505-506-512-517-524-527-544-549-559, and 595 or 596. They are also required to take the Clinical Practicum for 4 to 6 semester hours.

The West Chester masters degree program in clinical psychology has been approved by the Pennsylvania State Board of Psychologist Examiners as meeting the educational requirements for licensure in Pennsylvania. To qualify for licensure, students are required to complete 40 semester hours in the clinical psychology concentration.

#### **Concentration: General Psychology**

33-36 Semester Hours

Students who wish training in general psychology are required to take 15 semester hours of required courses. These are 503-504-505-506 and 512. Either a thesis (PSY 610) for 3 semester hours or a research report (PSY 600) for 3 semester hours is required. All students in this concentration must complete 15 semester hours of electives. Subject to approval, six semester hours of electives may be taken from any college graduate offering.

#### **Concentration: Industrial/Organizational Psychology**

The industrial/organizational concentration includes 27 semester hours of required coursework (PSY 503-504, 509, 524, 445, 560, 562, 564 and 566). A 3 credit internship and a 3-6 credit research experience (PSY 600 or PSY 610) are also required. In addition, students must take two elective courses, which in combination with their internship and research experience, will enable them to explore a particular aspect of the field in greater depth. The elective coursework may be taken outside of the Psychology Department. With careful selection of electives, internship, and research focus, students will be able to develop specialization in human factors, personnel evaluation and placement, or group and organizational processes aspects of industrial/organizational psychology.

### **MASTER OF ARTS IN SOCIAL SCIENCE**

#### **Concentration: Psychology**

30-36 Semester Hours

The Master of Arts in social science, an interdisciplinary degree within the Faculty of Arts and Sciences, is particularly designed for teachers desiring strengthened subject-matter knowledge in more than one academic discipline. The program also prepares students for ca-

reers in government and industry and is appropriate for those desiring cultural enrichment. The concentration in psychology is especially recommended for students whose interests are directed toward human concerns and services. Candidates in this concentration are advised by the Department of Psychology.

#### Requirements:

In the research area PSY 503-504 are required. The student must take from 9 to 12 additional semester hours of psychology courses, selected under advisement. Within the concentration a research report (PSY 600), a thesis (PSY 610), or a practicum in an applied setting (PSY 615 or PSY 620) may be recommended.

Beyond the psychology concentration, the student must complete 12 semester hours of social science electives chosen from at least two departments other than psychology. Finally there is a cognate elective area of 0-3 semester hours, to be chosen from any school in the college.

### COURSE DESCRIPTIONS\*

#### PSYCHOLOGY

##### Symbol: PSY

**501 Introductory Statistics for the Behavioral Sciences (3)** Central tendency, variability, standard scores, correlation, probability, sampling, tests of hypotheses, "t" test, chi square, distribution-free statistics, introduction to analysis of variance.

**502 Advanced Statistics for the Behavioral Sciences (3)** Special correlational methods, analysis of variance, and analysis of covariance. PREREQ: PSY 501.

NOTE: PSY 501-502 provide a foundation and review for PSY 503-504 but may not be substituted for those courses. PSY 501 is particularly recommended for those who are weak in, or have not previously been exposed to, behavioral sciences statistics.

**503-504 Research Methodology and Statistics I-II (3) (3)** This two semester sequence course covers descriptive and inferential statistical techniques with emphasis on application to research in psychology and related areas. 503 must precede 504. (PREREQ: PSY 501 or equivalent).

**505 Advanced General Psychology (3)** Intensive consideration of learning, memory, cognitive processes, motivation, emotion, human development, personality, and physiological psychology.

**506 Theories of Learning (3)** Survey and critical review of existing theories of learning and the relevant research data.

**509 Advanced Social Psychology (3)** Emphasizes contemporary approaches to the study of social behavior including cognitive, social, and experimental and quasi-experimental research methodology.

**512 Psychology of Personality (3)** The interaction and effects of forces which influence personality development. Normal and neurotic development contrasted; principles of personality measurement explored.

**517 Psychopathology (3)** Advanced study of abnormal human behavior and a description of pertinent types, including symptoms, causes, and treatment. Current and recent theoretical approaches and research findings relevant to the etiology and treatment of these disorders. PREREQ: PSY 375—512, or equivalents, or permission of instructor.

**524 Psychometrics (3)** A survey of measurement theory in psychology with emphasis on the logic of measurement, scaling models, statistical methods, construction of valid and reliable measures. PREREQ: PSY 503, and 512 recommended.

**527 Behavior Modification (3)** Application of learning principles and environmental control to behavior change. Foundation principles, techniques and assessment methods of modification. PREREQ: PSY 506 or equivalent.

**544 Individual Psychometric Techniques: Wechsler & Binet Scales (3)** Historical development, administration, scoring, and interpretation of the Wechsler and Binet scales. PREREQ: PSY 501 and PSY 524 or equivalent. Restricted to psychology majors. By permission only (Usually restricted to clinical psychology majors).

**549 Introduction to Projective Techniques and Personality Testing (3)** History and theory of personality testing. Introduction to administration, scoring and interpretation of projective techniques. PREREQ: PSY 517 or equivalent, and PSY 524. Restricted to clinical psychology majors or permission of instructor.

**550 Seminar in Psychology (1-3)** Selected problems in psychology. Subject announced in advance of each semester. Offered on demand.

**555 Psycholinguistics (ALSO LIN 555) (3)** See LIN 555. Offered on demand.

\*All courses in the Psychology Department are restricted to those students who have been admitted to a degree program by the Psychology Department, or to those who have received special permission to register for a course from the Psychology Department Graduate Coordinator.

**559 Psychotherapy (3)** Theoretical considerations, principles, techniques, and problems involved in counseling and psychotherapy. (Usually restricted to clinical psychology majors). PREREQ: PSY 512, 517 or equivalents.

**560 Advanced Industrial and Organizational Psychology (3)** Application of individual differences, learning and aptitudes to functions such as personnel selection, placement training, and performance appraisal. Also, emphasis directed to psychological aspects of organizational functioning such as worker motivation, job satisfaction, organizational development, and strategies for organizational change.

**562 Psychology of Occupational Behavior (3)** Selected theoretical and empirical findings relevant to career development over the life span, implications of national manpower policy and vocational counseling procedures within the context of business and industrial settings.

**564 Human Factors and Performance Analysis (3)** Methods and results of experimental psychology pertinent to man-machine relationship problems. Workplace design, systems approach, control and display and man in space challenges are emphasized.

**566 Seminar in Industrial/Organizational Psychology (3)** Recent technical, legal, social and ethical aspects of the field are covered. Affirmative action and assessment, equal opportunity, minorities and women in the work force and other pertinent issues are emphasized.

**590 Independent Studies in Psychology (1-3)** Research projects, reports, readings in psychology. PREREQ: approval of department chairperson.

**595 Clinical Psychology (Child and Adolescent) (3)** Survey of clinical techniques used in assessment and treatment of childhood and adolescent personality disorders. (Restricted to psychology majors). PREREQ: PSY 512, PSY 517.

**596 Clinical Psychology (Adult) (3)** Theoretical foundations of clinical evaluation, screening, and treatment methods. Emphasis on clinical psychology as a profession. PREREQ: PSY 512, PSY 517.

**600 Research Report (3)** An original review of the literature. \*\*

**610 Thesis (3-6)** An original empirical study. PREREQ: PSY 504 and permission of instructor. \*\*

**615 Clinical Practicum in Psychology (3-6)** Supervised professional participation in applied

psychological activities or projects in cooperating agencies and institutions. \*\* PREREQ: PSY 503, 504, 505, 506, 512, 517, 524, 544, 559, 595 or 596. Restricted to psychology majors and recommendation of graduate clinical faculty.

**620 Practicum in School Psychology (3-15)** Supervised experience as a school psychologist. Offered for students seeking out-of-state certification as a school psychologist (West Chester State College does not presently offer a program leading to certification as a School Psychologist in the Commonwealth of Pennsylvania). Restricted to psychology majors.

**630 Internship in Industrial/Organizational Psychology (3)** Supervised professional participation in applied psychological activities within a business and/or organizational setting. PREREQ: permission of instructor.

The following four 400 level courses are frequently taken for graduate credit, with one of these—PSY 445—serving as a core requirement in the Industrial/Organizational concentration:

**430 Human Sexual Behavior (3)** The study of those variables under which human sexual behavior functions. Research from sociological and medical studies is integrated with psychological knowledge.

**443 Psychology of Group Processes (3)** Survey of psychological group processes, tracing the origins and historical development of the major contributing theoretical orientations.

**445 Organizational Development (3)** The study of human behavior in task group and organizational contexts.

**465 Psychology of Women (3)** A study of behaviors and experiences of women: biological, cultural, interpersonal and intrapersonal determinants of women's actions, thoughts, and feelings are explored.

These additional 400 level courses may be taken for elective graduate credit with the permission of the course instructor, and the student's program advisor and/or the Psychology Department Graduate Coordinator: PSY 435 (Animal Behavior), 450 (Motivation), 461 (Applied Psychology), 462 (History and Systems of Psychology), 464 (Physiological Psychology), 470 (Sensory and Perceptual Processes), 482 (Developmental Psychology II—Infancy and Childhood), 483 (Developmental Psychology III—Adolescence), 484 (Developmental Psychology IV—Adulthood and Aging), and 490 (Topical Seminar in Psychology). Descriptions of these courses can be found in the current West Chester State College Undergraduate Catalog.

Requirements in addition to those existing for undergraduates are imposed for any 400 level course taken for graduate credit.

\* While work on these courses may be completed any semester, students are encouraged to enroll for them during the summer sessions.

Courses may be cancelled or semester changed as required by enrollment. Summer courses depend upon adequate enrollment.

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# Social Work

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Dr. Main, *Chairperson*

## ASSOCIATE PROFESSORS

Charlotte E. Bartlett, M.S.S., *Bryn Mawr College*  
John A. Main, D.S.W., *University of Pennsylvania*

## ASSISTANT PROFESSORS

Cheryl Hodgins, M.S.W., *University of Texas*  
Mildred Joyner, M.S.W., *Howard University*  
Mary W. McCullough, M.S.W., *University of North Carolina*  
Robert B. McCutcheon, M.S.W., *Rutgers School of Social Work*

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The department on a limited basis offers graduate courses in social work to graduate students from other areas as well as to advanced undergraduate majors and nonmajors.

## MASTER OF SCIENCE IN ADMINISTRATION: Concentration in Social Work.

The Department of Social Work participates in an interdisciplinary degree program leading to a Master of Science in Administration with a concentration in Social Work. See ADMINISTRATION page 35. Prerequisites—A B.S.W. or a B.A. Degree in Social Work or a B.A. or a B.S. Degree and three years' social work experience. Without three years' social work experience, student must take SWO 551 and SWO 553.

## COURSE DESCRIPTIONS

### SOCIAL WORK

Symbol: SWO

**520 Theory for Social Work Practice (3)** A survey of various psychological/sociological theories with emphasis on their application to social work practice.

**521 Social Group Work with Women in Transition (3)** Dynamics of social group work process, with attention given to the special knowledge and skills needed for working with separated, divorced, or abused women. Summer.

**522 Family Therapy in Social Work (3)** Social work skills and the social worker's role as a team member working with families in therapy. Summer.

**523 Supervision and Staff Development (3)**

Basic concepts of supervision as a medium for instruction and staff development with an emphasis on the skill of supervision.

**531 Proposal Development (3)** A study of current funding streams and the techniques of proposal development.

**532 Social Legislation (3)** Analysis of social welfare policy with an emphasis on social change.

**550 & 551 Field Instruction (3-6)** The application and integration of theoretical concepts and the development of professional skills in a social agency in administrative practice.

**552 & 553 Social Work Seminar (3-6)** Students will meet in a weekly 2½ hour practicum for the integration of theory and practice experience.

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**Sociology—See Anthropology and Sociology**

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# Special Education

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Ms. Nickles, *Chairperson*

## PROFESSOR

Howard Freeman, Ed.D., *University of Pennsylvania*

## ASSOCIATE PROFESSOR

Martin Zlotowski, Ph.D., *Michigan State University*

## ASSISTANT PROFESSORS

Judith S. Finkel, M.Ed., *West Chester State College*

Deborah A. Nickles, M.S., *Syracuse University*

Harold Rubin, Ph.D., *Ohio State*

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The Special Education Department offers a program leading to the Master of Education in Special Education. The program is open to teachers and other professionals working with handicapped individuals.

**THE PROGRAM DOES NOT LEAD TO LEVEL I CERTIFICATION IN SPECIAL EDUCATION.**

## MASTER OF EDUCATION IN SPECIAL EDUCATION

Admission requirements: All candidates must meet the general requirements for admission to a degree program at West Chester State College. These are found in the Graduate Studies Catalog.

The following items should be returned with your completed application form to the Graduate Office:

1. a copy of your Pennsylvania Instructional I Certificate.
2. an extended statement describing your interests, needs and goals, including your interest in taking graduate study
3. evidence of an acceptable score on the Miller Analogies Test

The Applicants must arrange for interviews with two members of the Special Education Department. Arrangements are made through the Department Secretary.

Failure to complete any of these application requirements will result in Provisional Matriculation Status and will limit the number of courses able to be taken.

### Degree Requirements:

1. The student must apply to be admitted to candidacy after the completion of twelve credit hours of work at West Chester State College including EDF 510 and two courses from the Special Education Program. Grade point averages must be consistent with standards required in graduate studies at West Chester.
2. Pass a comprehensive examination after the completion of a minimum of 24 semester hours of work—maximum 30 semester hours. The student must file with the chairperson, a written request to take the examination no later than two weeks prior to the date of the examination. The examination may be taken twice (a semester interval is required between failure and reexamination). A student who fails the examination twice must obtain approval of the chairperson to take it a third and final time.

3. Complete all degree requirements with a cumulative average of 3.0 in areas II and III, with an overall cum of 2.75.

## MASTER OF EDUCATION IN SPECIAL EDUCATION

### Program Description

The program is offered on a thesis or non-thesis basis:

Option A: (30 semester hours plus thesis)

This is the thesis program. The student will complete 9 hours in area I, 12 hours in Area II, 9 hours in Area III, and EDA 590.

Option B: (36 semester hours)

Under this plan the student will complete 9 hours in Area I, 15 hours in Area II, and 12 hours in Area III.

### Area I—Professional Education

EDF 500 Methods & Materials of Research in Education

EDE 510 Educational Foundations

EDP 550 Advanced Educational Psychology

### Area II—Special Education

EDA 541 Psychology of Exceptional Children

EDA 573 Development Assessment

EDA 501 Prescriptive Teaching

EDA 580 Current Issues & Trends

EDA 581 Practicum (Required in Option B)

EDA 590 Research & Thesis (Required in Option A)

### Area III—Concentration

Students will select an area of concentration under advisement. Concentration will consist of approved courses from one of the following areas:

The Arts  
Communication Disorders  
Counseling  
Criminal Justice  
Educational Research  
Elementary Education Areas  
Health Education

Instructional Media  
Physical Education  
Psychology  
Reading  
Secondary Education  
Special Education  
Urban Education

## COURSE DESCRIPTIONS

Symbol: EDA

*The following courses may be taken as electives by anyone in a graduate program, subject to approval from the department and the student's chairperson.*

**500 Mainstreaming for Exceptional Students** (3) Designed to acquaint classroom teachers with special education students who may be spending some portion of the day in a regular setting. Current regulations and ways of meeting educational needs will be reviewed.

**501 Prescriptive Teaching** (3) An attempt to guide the teacher to an awareness of the methods by which medical, psychological, behavioral, and academic diagnosis may be converted into relevant educational terms providing for ade-

quate follow-through on specific recommendations. PREREQ: EDA 573.

**502 Nature and Needs of the Gifted and Talented** (3) Definition, identification and enumeration of the characteristics of the gifted child, with emphasis on the need to provide effective and innovative means of meeting educational needs. Special attention devoted to understanding the nature and problems of the gifted underachiever.

**540 Workshop in Special Education** (6) An intensive program of observation and instruction of mentally retarded or physically handicapped children. Instructional experience with handicapped children is combined with lecture, demonstration, films, guest speakers, and case study. Primarily for in-service teachers. PREREQ: permission of coordinator.

**541 Psychology of Exceptional Children (3)** Psychology of children whose intellectual, physical, social, and/or emotional characteristics are significantly deviant from those of children whose needs are met through normal educational routes.

**542 Developmental Disabilities (3)** Focus on the concept of developmental disabilities including etiology, manifestations, and identification. Genetic, psychosocial, and environmental factors are considered.

**544 Classroom Management (3)** Exploration of current practices in the management and modification of behavior. The professional's role in achieving a better basis for meaningful communication with the special child. Problems which may interfere with teacher effectiveness are discussed.

**560 Administration and Supervision of Special Education I (3)** This course is intended to serve as an introduction to special education training. Concepts and practices presented will be those unique to the field of special education.

**561 Administration and Supervision of Special Education II (3)** This course is intended to develop an understanding of the principles and practices used in supervision, emphasizing individual and group processes.

**562 Supervision Practicum: Special Education (3)** This course is designed to practice those skills gained through course work and necessary for successful performance. This practicum will be done in an education facility and assessed by administrative and supervisory personnel.

**571 Childhood Learning Disabilities (3)** The study and education of the child with perceptual problems and/or minimal brain damage.

**572 The Emotionally Disturbed Child (3)** A study of abnormal and atypical behaviors exhibited by disturbed children with emphasis on environmental contingencies and implications. Intervention and prevention strategies will be discussed.

**573 Developmental Assessment of Children with Learning Problems (3)** Diagnostic procedures and subsequent educational prescriptions useful with children experiencing learning difficulties. PREREQ: EDA 541 or equivalent.

**575 Mental Health in Schools (3)** Factors affecting the mental health of both children in the classroom and their teachers. Effective means of identifying and responding to problems are brought out through a seminar approach. The course also explores the effect of mental health on classroom climate.

**580 Current Issues and Trends (3)** Current trends, problems, and issues in special education, teacher education, research and administration will be explored. Emerging concepts relating to special education and exceptional children will be emphasized.

**581 Practicum: Special Education (3)** Intended to provide the student an opportunity to put skills gained through course work into practice under supervision from the department. Weekly seminar required.

**590 Independent Study (1-3)**

**591 Thesis and Research (6)** The course will provide the student the opportunity to learn how to evaluate and interpret published research, to conduct a critical research review, and to develop and carry out an original research paper. It will be offered on a two-semester basis with each segment carrying 3 credits. PREREQ: EDF 500.

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# Speech Communication and Theatre

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Dr. Morehouse, *Chairperson*

## PROFESSORS

Myles Martel, Ph.D., *Temple University*

William M. Morehouse, Ph.D., *Purdue University*

## ASSOCIATE PROFESSORS

Jay H. Berkowitz, M.A., *Temple University*

Diane O. Casagrande, Ph.D., *Temple University*

## ASSISTANT PROFESSOR

Saundra M. Hall, M.A., *Ohio State University*

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## COURSE DESCRIPTIONS

### SPEECH COMMUNICATION

Symbol: SPC

**515 General Semantics (also LIN 515) (3)** Introduction to the relativistic language concepts of Korzybski and his followers. The course focuses on what language does to people and the subsequent effects on communication.

**517 Producing the Television Program (Non-dramatic) (3)** Basic concepts of television planning and production for the nondramatic format. The student uses the tools of television. (Lecture and laboratory.)

**518 Television Program Directing (Dramatic) (3)** Continuation and development of skills and knowledge in the use of television equipment; application of the arts of the theatre and film. (Lecture and laboratory.) **PREREQ:** THA 517.

**550 Listening: Verbal and Nonverbal Perceptions (3)** A survey of research in listening behavior and related nonverbal variables. Identifica-

tion of important characteristics of effective listeners. Application to communication activities in the classroom.

## COURSE DESCRIPTIONS

### THEATRE

Symbol: THA

**506 Theatre Theory and Production (3)** A survey of theatre history and practice. Students select specific areas of production and style for classroom presentation, analysis, and research.

**516 Theory and Application of Creative Dramatics (3)** The use of creative dramatics as a teaching method. Research and application of theories and techniques.

**550 Summer Drama Workshop (1-6)** An intensive combination of instruction and applied production experiences. Graduate students will research production theories and submit scholarly papers at the end of the session. Summer only.

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# Teaching English as a Second Language

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Dr. Falgie and Dr. Smith, *Program Coordinators*

Diane O. Casagrande, *Associate Professor of Speech*  
W. Stephen Croddy, *Associate Professor of Philosophy*  
Joseph Falgie, Jr., *Professor of English and Linguistics*  
John T. Kelly, *Associate Professor of English*  
Willie E. Page, Jr., *Associate Professor of English*  
Philip D. Smith, Jr., *Professor of TESL and Linguistics*  
Paul A. Stoller, *Assistant Professor of Anthropology*

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The Master of Arts in Teaching English as a Second Language is an interdisciplinary program contributed to by the Departments of English, Foreign Languages, Philosophy, and Speech Communication and Theatre. The program is designed for those preparing to teach English to students whose first language is not English. Students wishing to enter the program must consult one of the coordinators.

In addition to meeting the general requirements for a master's degree at West Chester, the candidate must (1) present an acceptable baccalaureate degree which includes at least 24 semester hours in the area of English/Foreign Languages/Linguistics, at least 6 semester hours in the area of Anthropology/Psychology/Sociology, and a course in teaching reading (may be taken as a program elective if lacking); (2) take the verbal and quantitative tests of the Graduate Record Examination or the Miller Analogies Test if deemed necessary; (3) demonstrate adequate proficiency in a foreign language if the student is a native speaker of English or adequate proficiency in English if the student is a non-native speaker of English; and (4) fulfill the course requirements and pass a written and/or oral comprehensive examination, offered on the second Wednesday of October and March.

## M.A. IN TEACHING AS A SECOND LANGUAGE (TESL)

33 Semester Hours

### Required Courses

LIN 501-503; LAN 500-502-503; ENG 575-576-577

24 s.h.

Students submitting equivalent courses for any of the above may substitute, under advisement, courses from the groups below.

### Electives

Selected from the groups below. At least one course must be selected from Group 1.

9 s.h.

Group 1: ENG 579; LIN 540-555-580

Group 2: ENG 578-590; LAN 504-505-580-590-600-610; LIN 504-505-509-512-590; PHI 506-523; SPC 515

With the approval of the coordinators, students wishing to acquire certification in English while enrolled in this program may use up to 6 hours of electives for this purpose.

For descriptions of courses under this program see English (ENG); Foreign Languages (LAN); Linguistics (LIN); Philosophy (PHI); and Speech Communication and Theatre (SPC).

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# Women's Studies

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Dr. Sessa, *Coordinator*

Mary Ann Duffy, *Chairperson, Library Services; Documents and Maps Librarian; Assistant Professor*

Barbara Coates, *Assistant Professor of Physical Education*

Mary Crawford, *Associate Professor of Psychology*

Harvey C. Greisman, *Assistant Professor of Anthropology and Sociology*

Madelyn Gutwirth, *Coordinator, Faculty of Arts and Sciences; Professor of Foreign Languages*

Saundra Hall, *Assistant Professor of Speech and Theatre*

Joan Hasselquist, *Assistant Professor of Elementary Education*

Pamela Hemphill, *Chairperson, Department of Art; Professor*

Mary A. Keetz, *Professor of Childhood Studies, and Reading*

Mary Kline, *Assistant Professor of Nursing*

Monita Lank, *Professor of Physical Education*

Alice Markow, *Professor of English*

Lynette McGrath, *Professor of English*

Christina McCawley, *Non-print Cataloger (Librarian); Assistant Professor*

Mary McCollough, *Assistant Professor of Social Work*

Tahany Naggar, *Assistant Professor of Economics*

Mary Ann Reiss, *Assistant Professor of Foreign Languages*

Arlene Rengert, *Associate Professor of Geography*

Anne Sessa, *Professor of History*

Carol Simmendinger, *Assistant Professor of Art*

Jane Swan, *Professor of History*

John Turner, *Professor of History*

Richard Webster, *Co-Director, American Studies; Professor of History*

William B. Peters, *Associate Professor of History*

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The Women's Studies Program consists of an interrelated group of courses offered in many disciplines in both arts and sciences and professional studies. Although primarily an undergraduate curriculum, the program does include graduate courses. They include EDE 589 Teaching Skills to Combat Sexism, PSC 515 Women and Politics, and SWO 521 Social Work with Women in Transition, PED 685 Women in Sport PSY 565 Psychology of Women. For additional offerings, consult the coordinators.

## NORTH CAMPUS

### KEY

1. Ramsey Hall
2. Tyson Hall
3. Goshen Hall
4. McCarthy Hall
5. Lawrence Center
6. Maintenance Garage
7. Housekeeping Services
8. Boiler Plant
9. Maintenance Building
10. Mitchell Hall
11. Reynolds Hall
12. Swope Hall
13. Sanderson Hall
14. Schmidt Hall
15. Wayne Hall
16. Hollinger Field House
17. Schmucker Science Center
18. Killinger Hall
19. Ruby Jones Hall
20. Philips Memorial Hall
21. Anderson Hall
22. Recitation Hall
23. Old Library
24. F.H. Green Library
25. Learning and Research Center
26. Health and Physical Education Center
27. Farrell Stadium
28. Tanglewood (President's residence)
29. Wilmington Field
30. Smith House (Academic Affairs)
31. New Main Hall
32. Sykes Student Union
33. Robert B. Gordon, Natural Area for Environmental Studies
34. Alumni House

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## SOUTH CAMPUS

## WEST CHESTER STATE COLLEGE MAP

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Philadelphia

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# ADMINISTRATION

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## January 1982

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President . . . . .	Charles G. Mayo
Special Assistant to the President & Director of Affirmative Action . . . . .	Teres E. Scott-Myers
Provost and Academic Vice-President . . . . .	Richard G. Branton
Associate Provost (Actg.). . . . .	Patricia C. Johnson
Special Assistant to the Provost. . . . .	William Torop
Dean of Graduate Studies . . . . .	Lon W. Weber
Dean of Academic Services & Special Programs. . . . .	John S. Bross
Dean, Faculty of Arts & Sciences (Actg.) . . . . .	Robert F. Foery
Coordinator, Faculty of Arts & Sciences . . . . .	Madelyn Gutwirth
Coordinator, Faculty of Arts & Sciences. . . . .	Stanley J. Yarosewick
Dean, Faculty of Professional Studies . . . . .	Kenneth L. Perrin
Director, School of Administration & Public Affairs . . . . .	James S. Milne
Director, School of Education . . . . .	Richard L. Strayer
Director, School of Health Sciences . . . . .	John D. Lemcke
Director, School of Music. . . . .	James D. Sullivan
Director of Admissions . . . . .	William E. Kipp
Director of Academic Development Program . . . . .	Charles H. Stuart
Director of Computer Center . . . . .	Samuel A. Hoffman
Director of Continuing Education. . . . .	Ernest L. Peters
Director of Library Services. . . . .	Frank Q. Helms
Director of Institutional Research . . . . .	Martin J. Higgins
Vice-President for Administration & Student Affairs . . . . .	Louis F. Weislogel
Asst. Vice-President for Admissions & Student Affairs. . . . .	R. Godfrey Studenmund
Dean of Students . . . . .	Rhoda Todd
Associate Dean of Students. . . . .	Thomas R. Lordan
Registrar. . . . .	Philip O. Austin
Director of Athletics . . . . .	Richard B. Yoder
Director of Career Development Center . . . . .	Walter R. Blair
Director of Counseling Center. . . . .	Thomas W. Spierling
Director of Financial Aid . . . . .	Rose Mary Stelma
Director of Health Services . . . . .	Philip E. Kistler, M.D.
Director of Housing and Residence Life . . . . .	Stanley P. Cahill
Director of Off-Campus Life . . . . .	Robert H. Jensen
Budget Director . . . . .	Everett E. Shaefer
Fiscal Manager . . . . .	Doris S. Dill
Director of Facilities . . . . .	William A. Peoples, Jr.
Director of Personnel . . . . .	William H. Schweitzer
Chief of Law Enforcement . . . . .	William S. Hayes, Jr.

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# Faculty

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## January, 1982

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CHARLES G. MAYO (1974) *President, Professor of Political Science*  
B.A., Reed College; M.A., Ph.D., University of Southern California

RICHARD A. BRANTON (1962) *Provost and Academic Vice President, Professor of Mathematics*

B.S., West Chester State College; M.S., University of Delaware; Ph.D., University of Pennsylvania

LOUIS F. WEISLOGEL (1970) *Vice-President for Administration and Student Affairs, Associate Professor*

A.B., Gettysburg College; M.S., Rutgers—The State University; M.A., Villanova University, Ed.D., Nova University

JOHN S. BROSS (1977) *Dean, Academic Services and Special Programs*

A.B., A.M., Ph.D., Harvard University

ROBERT F. FOERY (1971) *Acting Dean Faculty of Arts and Sciences; Professor of Chemistry*  
B.S. LeMoyne College; M.S., Providence College; Ph.D., University of Iowa

KENNETH L. PERRIN (1980) *Dean, Faculty of Professional Studies*

B.A., Occidental College; M.A., California State University at Long Beach; Ph.D., Stanford University Medical School

RHODA L. TODD (1976) *Dean of Students*  
B.S., Ohio University; M.Ed., University of Cincinnati and Bowling Green State University

LON W. WEBER (1977) *Dean, Graduate and Continuing Studies*

B.S., University of Wisconsin—Platteville; M.S., Ph.D., University of Wisconsin—Madison

CHRISTINE H. ABBOTT (1979) *Instructor of Communication and Theatre*  
B.A., Virginia Polytechnic Institute; M.F.A., Temple University

THOMAS J. AHLBORN (1967) *Associate Professor of Mathematics*

B.S., California State College; M.A., Kent State University

SYLVIA MOSS AHRAHMIJAN (1976) *Assistant Professor of Instrumental Music*  
B.Mus., Juilliard School of Music; M.Mus., Indiana University, Bloomington

LEILA B. ALSON (1973) *Assistant Professor of Speech Pathology and Audiology*  
B.A., Hunter College; M.A., Ohio University

LOIS W. ALT (1966) *Associate Professor of Vocal and Choral Music*  
B.S., Indiana University of Pennsylvania; B.Mus., M.Mus., University of Michigan

GARY ANDERSON (1979) *Assistant Director, Department of Athletics; Instructor*  
B.S., M.Ed., West Chester State College

WILLIAM B. ANDERSON (1975) *Assistant Professor of Criminal Justice [Part-time]*  
B.A., Pennsylvania State University

ALEXANDER ANTONOWICH (1945) *Professor of Music Education*

B.S., The Juilliard School; M.A., Ed.D., Columbia University

LESTER F. AUNGST (1973) *Associate Professor of Speech Pathology and Audiology*

B.A., Augustana College; M.S., Ph.D., Pennsylvania State University

EDWARD AZARY (1977) *Assistant Professor of Chemistry*

B.S., Bloomsburg State College, Ph.D., University of Western Ontario

JOHN H. BAKER (1974) *Instructor of Art*  
B.A., West Chester State College

ANGELOS C. BALLAS (1972) *Associate Professor of Business Administration*

B.S., M.A., New York University, Ph.D., New School for Social Research

PAUL A. BANYACSKI (1965) *Associate Professor of Philosophy*  
B.A., Eastern College

JUDITH BARON (1974) *Psychologist, Counseling Center; Associate Professor*  
B.A., M.A., University of Michigan; Ph.D., York University, Toronto

EDWARD A. BARROW (1956) *Chairperson Department of Instrumental Music; Professor*  
B.Mus., M.Mus., Eastman School of Music; Ph.D., West Virginia University

CHARLOTTE E. BARTLETT (1972) *Associate Professor of Social Work*  
B.A., University of Pennsylvania; M.S.S., Bryn Mawr College

MARSHALL J. BECKER (1968) *Professor of Anthropology*  
B.A., M.A., Ph.D., University of Pennsylvania

ROBERT M. BEDFORD (1966) *Associate Professor of Keyboard Music*  
B.Mus., M.S., The Juilliard School

CAROL BELMAIN (1971) *Associate Professor of Music Education*  
B.S., M.S., Ithaca College

JAY H. BERKOWITZ (1969) *Associate Professor of Communication and Theatre*  
B.S., M.A., Temple University

ROBERT W. BERNHARDT (1965) *Associate Professor of Biology*  
B.S., M.S., Syracuse University

FLOYD R. BIELSKI (1961) *Chairperson, Department of Government and Planning; Associate Professor of Geography*  
B.S., Indiana State University; M.A., University of Illinois

EDWARD C. BITNER (1972) *Assistant Professor of Physical Education*  
B.S., West Chester State College; M.S., University of Southern California

BARBARA R. BLACK (1970) *Director, Greek Life and Student Organizations; Assistant Professor, Educational Services*  
B.S., Cheyney State College; M.A., Kean College

WALTER R. BLAIR (1966) *Director of Career Development Center; Associate Professor*  
B.S., West Chester State College; M.Ed., Temple University

RICHARD E. BLAKE (1975) *Assistant Professor of Art*  
B.F.A., Tyler School of Fine Arts

RICHARD A. BOERLIN (1961) *Associate Professor of Instrumental Music*

B.S., M.S., University of Illinois

DALE R. BONSALE (1969) *Associate Professor of Physical Education*  
B.S., West Chester State College; M.Ed., Western Maryland College

JOHN BOSWORTH-FLING (1965) *Associate Professor of English*  
A.B., West Virginia University; M.A., Columbia University; M.S.J., Northwestern University

VALERIE E. BOYLAN (1968) *Assistant Professor of English*  
B.A., M.A., University of Dublin

BETTY FINCH BOYLE (1972) *Assistant Professor of Health*  
B.S., Ball State University; M.Ed., West Chester State College

THOMAS J. BRADY (1967) *Professor of Political Science*  
B.S., West Chester State College; J.D., Temple University

ERMINIO BRAIDOTTI (1978) *Assistant Professor of Foreign Languages*  
B.A., Youngstown State University; M.A., Middlebury College

JUSTO B. BRAVO (1964) *Professor of Chemistry*  
B.S., Adamson University (Manila); Ph.D., University of Kansas

LINDA S. BREUNIG (1978) *Instructor, Educational Services*  
B.S., M.A., West Chester State College

JAMES B. BRICE (1968) *Associate Professor of Childhood Studies and Reading*  
B.S., M.Ed., West Chester State College; M.A., Villanova University

MICHAEL W. BROOKS (1971) *Professor of English*  
B.A., Antioch College; M.A., Ph.D., University of Toronto

EMMA LEE BROWN (1969) *Associate Professor of Library Services*  
A.B., Fairmount State College; M.S.L.S., Drexel University

ROGER J. BROWN (1968) *Instructor of Foreign Languages*  
B.S., West Chester State College

WILLIAM C. BROWN (1968) *Associate Professor of Biology*  
B.S., M.Ed., Bloomsburg State College

JOSEPH P. BROWNE (1966) *Professor of English*  
Diplome en Philosophie, St. Jérôme's College (University of Ottawa); B.S., St. Joseph's Uni-

versity (Pa.); M.A., Ph.D., University of Pennsylvania

STELLA P. BRUTON (1964) *Associate Professor of English*  
A.B., M.A., Stanford University

WALTER E. BUECHELE, JR. (1962) *Director of Summer Sessions, Professor of Counselor, Secondary, and Professional Education*  
B.S., West Chester State College; Ed.M., Ed.D., Temple University

H. JAMES BURGWIN (1968) *Associate Professor of History*  
B.A., Swarthmore College; M.A., University of Pennsylvania; Ph.D., University of Pittsburgh

WILLIAM F. BURNS (1964) *Assistant Chairperson, Department of Government and Planning; Associate Professor of Political Science*  
B.A., Allegheny College; M.A., Case Western Reserve University

A. WAYNE BURTON (1965) *Associate Professor of Political Science*  
B.A., Brigham Young University; M.A., University of Pennsylvania

THEODORE H. BUTCHER (1970) *Assistant Director, Special Student Services, Associate Professor, Educational Services*  
B.A., Lincoln University; M.B.A., Drexel University

J. WILLIAM BUTLER (1966) *Associate Professor of Physical Education*  
B.S., West Chester State College; M.Ed., Pennsylvania State University

ROBERT E. BYTNAR (1975) *Instructor of Communication and Theatre*  
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KITTY C. CALDWELL (1972) *Assistant Professor of Physical Education*  
B.S., M.Ed., West Chester State College

MARGARETTA A. CAREY (1968) *Professor of Music Education*  
B.S., Lebanon Valley College; M.Mus., Eastman School of Music; Ed.D., Pennsylvania State University

ROBERT E. CARLSON (1961) *Professor of History*  
B.A., M.A., Ph.D., University of Pittsburgh

CECILY G. CARMICHAEL (1962) *Assistant Professor of Library Services*  
B.S., Simmons College; M.S.L.S., Drexel University

GERALD B. CARTRIGHT (1961) *Associate Professor, Educational Services*

B.S., Lock Haven State College; M.Ed., Pennsylvania State University

DIANE O. CASAGRANDE (1968) *Associate Professor of Communication and Theatre*  
A.B., Wayne State University; M.A., Temple University; Ph.D., Temple University

LOUIS A. CASCIATO (1963) *Director, Academic Advisement Center; Associate Professor of Earth Sciences*  
B.S., St. Joseph's College (Pa.); M.S., Villanova University

CONRAD E. CHALICK (1962) *Psychologist, Counseling Center; Associate Professor*  
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DAVIS S. CHARTERS (1968) *Chairperson, Department of Physical Education; Associate Professor*  
B.S., M.S.; Temple University

NONA E. CHERN (1968) *Associate Professor of Childhood Studies and Reading*  
B.S., Temple University; M.S., University of Pennsylvania, Ed.D., Temple University

K. ELEANOR CHRISTENSEN (1972) *Associate Professor of Childhood Studies and Reading*  
B.A., M.A., Michigan State University; Ph.D., University of Delaware

HUNG M. CHU (1976) *Associate Professor of Business Administration*  
B.S., St. Joseph's College (Indiana); M.B.A., Northern Illinois University; Ph.D., Louisiana State University

CARMELA L. CINQUINA (1963) *Professor of Biology*  
B.S., West Chester State College; M.S., Villanova University; Ph.D., Rutgers—The State University

GEORGE S. CLAGHORN (1963) *Chairperson, Department of Philosophy; Professor*  
B.A., University of Chattanooga; Ph.D., University of Pennsylvania

JAY L. CLARK (1967) *Professor of Psychology*  
B.A., University of Delaware; M.A., Ph.D., University of Minnesota

MARY ELIZABETH CLEARY (1967) *Professor of Counselor, Secondary, and Professional Education*  
B.A., St. Joseph's College for Women; A.M., Ed.D., George Washington University

BARBARA J. COATES (1954) *Associate Professor of Physical Education*  
B.S., Lock Haven State College; N.A. Allegheny College

NORMAN A. COCHRAN (1956) *Assistant Chairperson, Department of Physical Education; Professor*  
B.S., West Chester State College; M.A., Ed.D., University of Maryland

BERNARD COHEN (1974) *Associate Professor of Psychology*  
B.A., Temple University; Ph.D., New York University

IRVING HERSCH COHEN (1969) *Professor of Music History and Literature*  
B.A., M.A., Ph.D., New York University

MILTON R. COLLIER (1967) *Associate Professor of Physical Education*  
B.S., M.A., East Carolina University

UEL W. COMBS, JR. (1967) *Assistant Professor of English*  
B.A., Adams State College; M.A., Temple University

STELLA F. CONAWAY (1966) *Assistant Professor of Vocal and Choral Music*  
B.Mus., M.Mus., The Philadelphia College of the Performing Arts

THOMAS J. CORR (1966) *Associate Professor of English*  
A.M., St. Joseph's College (Pa.); M.A., John Carroll University; Ph.D., Duquesne University

JOYCE R. COUNTISS (1976) *Associate Director of Athletics; Assistant Professor of Physical Education*  
B.S., Douglas College of Rutgers University; M.A., Trenton State College; Ed.D., Temple University

JON A. COWEN (1967) *Assistant Professor of Sociology*  
B.A., University of Massachusetts; A.M., University of Pennsylvania

MARY E. CRAWFORD (1978) *Associate Professor of Psychology*  
B.S., West Chester State College; M.A., Ph.D., University of Delaware

W. STEPHEN CRODDY (1969) *Professor of Philosophy*  
B.A., University of Southern California; M.A., Temple University; Ph.D., Brown University

FLORENCE JOSEPH CROWLEY (1968) *Professor of History*  
B.A., M.A., Brooklyn College; Ph.D., University of Florida

GEORGANN CULLEN (1964) *Associate Professor of Biology*  
B.S., M.A., Kent State University

RONALD N. DEFINO (1973) *Assistant Professor of Art*

B.S., Philadelphia College of Art; M.F.A., Tyler School of Art

HARRY H. DEISCHER (1966) *Chairperson, Department of Counselor, Secondary, and Professional Education; Professor*  
B.S., M.A., M.S., Ed.D., University of Pennsylvania

JOHN L. DE MILLION, JR. (1970) *Associate Professor of Health*  
B.S., Slippery Rock State College; M.Ed., University of Pittsburgh

PHILIP M. DE MOSS (1972) *Chairperson, Department of Economics, Associate Professor*  
B.A., Park College; M.A., Ph.D., Kansas State University

THOMAS DE MOTT (1969) *Professor of Biology*  
A.M.E., Widener College; V.M.D., University of Pennsylvania

CHARLOTTE DEMPSEY (1976) *Assistant Professor of Speech Pathology and Audiology*  
B.A., Milwaukee-Downer College; M.A., University of Illinois

KATHLEEN DEVLIN-KELLY (1976) *Assistant Professor of Nursing*  
B.S.N., Georgetown University; M.S.N., Georgetown University; M.S.N., Boston University

ANDREW E. DINNIMAN (1972) *Associate Professor, Educational Services*  
B.A., University of Connecticut; M.A., University of Maryland; Ed.D., Pennsylvania State University

PHILLIP B. DONLEY (1965) *Professor of Physical Education*  
B.S., M.S., West Virginia University; Certificate in Physical Therapy, D.T. Watson School of Physiatrics

JOHN E. C. DORCHESTER (1961) *Professor of Biology*  
B.A., M.A., University of British Columbia, Ph.D., University of Toronto

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RAYMOND A. DOYLE (1965) *Associate Professor of History*  
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A.B., Immaculata College; M.S.L.S., Drexel University

A. SCOTT DUNLAP (1967) *Associate Professor of Childhood Studies and Reading*  
B.A., King's College (N.Y.); M.Div., Eastern Baptist Theological Seminary

KEVIN G. DUNLEAVY (1979) *Assistant Professor of Economics*  
B.A., University of Delaware

MARC L. DURAND (1968) *Professor of Chemistry*  
B.S., Holy Cross College Ph.D., University of New Hampshire

JOHN L. EBERHART (1969) *Assistant Professor of Speech Pathology and Audiology*  
B.S., Bloomsburg State College; M.A., Syracuse University

HOWARD EDELMAN (1981) *Assistant Professor of Mathematical Sciences*  
B.Ch.E., City University of New York; M.S., C.S., University of Delaware

JACK P. EDWARDS (1968) *Assistant Professor of Counselor, Secondary, and Professional Education*  
B.S., M.Ed., West Chester State College

THOMAS EGAN (1968) *Director, Management Information Systems; Professor, Educational Services*  
B.S., M.Ed., West Chester State College; Ed.D., University of Pennsylvania

JOHN E. EHLEITER (1969) *Chairperson, Department of Geology and Astronomy, Associate Professor*  
A.B., M.A., Franklin and Marshall College; M.A., Wesleyan University

RALPH A. EISENSTADT (1965) *Assistant Professor of Foreign Languages*  
B.A., University of Pennsylvania; M.A., University of Illinois

DAVID S. ELDREDGE (1967) *Associate Professor of Political Science*  
B.A., Yale University; M.A.T., C.A.S., Harvard University

ELIZABETH ELDREDGE (1965) *Chairperson, Department of Psychology; Associate Professor*  
B.A., Albright College; M.A., Temple University

MARIANNE ELEUTERIO (1973) *Associate Professor of Biology*  
B.S., Michigan State University; Ph.D., University of Delaware

JORGE ESCORCIA (1968) *Associate Professor Foreign Languages*  
Lic., Universidad Pedagogica del Caribe; M.A., Boston University

JAMES D. FABREY (1975) *Associate Professor of Mathematics*  
B.A., Cornell University; Ph.D. Massachusetts Institute of Technology

PETER C. FACKLER (1980) *Assistant Professor of Accounting*  
A.B., Duke University; M.B.A., University of Michigan

JOSEPH FALGIE, JR (1970) *Professor of English*  
B.A., Temple University; M.A., Ph.D., University of Pennsylvania

WESLEY E. FASNACHT (1967) *Associate Professor, Educational Services*  
B.S., Millersville State College, M.S., State University of New York at Buffalo

JOHN J. FENTON (1980) *Associate Professor of Chemistry*  
B.A., Catholic University of America; Ph.D., University of Minnesota

ROSE L. FICKNER (1979) *Instructor of Nursing Diploma, Hazleton State General Hospital School of Nursing; B.S., West Chester State College; M.S.N., University of Pennsylvania*

JOHN P. FIELD (1970) *Professor of English*  
A.B., Bowdoin College; M.B.A., Harvard University; A.M., Ph.D., University of Cincinnati

RICHARD W. FIELDS (1980) *Instructor of Keyboard Music*  
B.M., M.M., Juilliard School

ALBERT E. FILANO (1956) *Professor of Mathematics*  
B.S., M.S., University of Pennsylvania; Ph.D., Pennsylvania State University

JUDITH S. FINKEL (1968) *Assistant Professor of Special Education*  
B.S., Temple University; M.Ed., West Chester State College

FRANKE E. FISH (1980) *Assistant Professor of Biology*  
B.A., SUNY at Oswego; M.S., Ph.D., Michigan State University

JOSEPH T. FISHER (1968) *Associate Professor of Health*  
B.S., Slippery Rock State College; M.S., University of Illinois

FRANK B. FORD (1965) *Associate Professor of English*  
B.A., M.A., University of Connecticut

WILLIAM D. FORDYCE (1968) *Associate Professor of English*  
A.B., A.M.T., A.M., Ph.D., Harvard University

CLAUDE R. FOSTER, JR (1967) *Professor of History*

B.A., Eastern College; B.D., The Reformed Episcopal Seminary; M.A., University of Delaware; Th.M., Crozer Theological Seminary; Zeugnis fuer die deutsche Sprache und Kultur, University of Freiburg; Ph.D., University of Pennsylvania

FRANK FOX (1967) *Professor of History*

B.S., Temple University; M.A., University of Pennsylvania; Ph.D., University of Delaware

THOMAS J. FRANCELLE (1965) *Professor of Criminal Justice*

A.B., Syracuse University; M.A., Villanova University; J.D., University of Baltimore

HOWARD FREEMAN (1961) *Professor of Special Education*

B.S., Millersville State College; M.A., University of Wyoming; Ed.D., University of Pennsylvania

BONITA FREEMAN-WITTHOFT (1974) *Assistant Professor of Anthropology*

B.A., University of Maine; M.A., Ph.D., University of Pennsylvania

MARY L. FRENZ (1967) *Associate Professor of Vocal and Choral Music*

B.Mus., M.Mus., Westminster Choir College

H. RAYMOND FRIDAY (1969) *Associate Professor of Vocal and Choral Music*

B.S., West Chester State College; M.Mus., Oberlin College; Diploma, Academy of Vocal Arts

WALTER E. FUNK (1966) *Associate Professor of Health*

B.S., Pennsylvania State University; M.Ed., University of Delaware

JOHN J. FURLOW (1961) *Associate Professor of Physical Education*

B.S., M.Ed., West Chester State College

CLYDE J. GALBRAITH (1974) *Assistant Professor of Accounting*

B.S., M.B.A., Drexel University; C.P.A., Commonwealth of Pennsylvania

CHARLES D. GANGEMI (1961) *Associate Professor Music Theory and Composition*

B.Mus., M.A., University of Pennsylvania

ROBIN GARRETT (1978) *Instructor of Nursing*

B.S.N., Case Western Reserve University; M.S.N., University of Pennsylvania

JOHN L. GAUNT (1970) *Professor of English*

B.A., M.A., Tulane University; Ph.D., University of Maryland

ELIZABETH A. GIANGIULIO (1972) *Assistant Director, Career Development Center*

B.S., West Chester State College; M.Ed., University of Arizona

EDWARD H. GIBSON (1967) *Assistant Professor of Childhood Studies and Reading*

B.S., West Chester State College; M.Ed., Lehigh University; Ed.D., Nova University

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B.A., M.A., Indiana University; M.A., Ph.D., University of Minnesota

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B.S. West Chester State College; M.Ed., Temple University

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M.Div., M.S., University of Belgrade; M.A., University of Pennsylvania

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B.S., M.Ed., West Chester State College

MARY ANN REISS (1969) *Assistant Professor of Foreign Languages*

B.A., Temple University; M.A., Villanova University

BARRY G. REMLEY (1968) *Assistant Professor of Physical Education*

B.S., M.Ed., West Chester State College

ARLENE C. RENGERT (1976) *Associate Professor of Geography*

A.B., University of Indiana; M.A., The Ohio State University; Ph.D., University of Pennsylvania

FRANCIS J. REYNOLDS (1961) *Professor of Chemistry*

B.S., Pennsylvania State University; Ph.D., University of Pennsylvania

LESLIE E. RICE (1980) *Instructor of Nursing*

B.S.N., M.S.N., University of Pennsylvania

RUSSELL K. RICKERT (1956) *Professor of Physics*

B.S., West Chester State College; M.S., University of Delaware; Ed.D., New York University

DONN C. RILEY (1966) *Professor of History*

A.B., M.A., Ph.D., St. Louis University

ROBERT D. RIMEL (1966) *Assistant Professor of English*

B.S., West Chester State College; M.A., University of Delaware

STANLEY RIUKAS (1968) *Professor of Philosophy*

A.B., Classical Gymnasium (Lithuania); Ph.B.,

Ph.L., Loyola University; Ph.D., New York University

ALFRED D. ROBERTS (1959) *Assistant Chairperson, Department of Foreign Languages; Professor*

B.A., Ursinus College; M.A., Ph.D., University of Pennsylvania

JOHN R. ROBILETTE (1979) *Assistant Professor of Keyboard Music*

B.M., Cornell College; M.F.A., University of California at Los Angeles, Certif., Ecole Normale de Musique de Paris

RONALD F. ROMIG (1967) *Professor of Biology*

B.S., Bloomsburg State College; M.Ed., Ph.D., University of Delaware

HARRISON C. ROPER (1969) *Associate Professor of Instrumental Music*

B.A., Harvard College; M.Mus., Catholic University of America

JOHN P. ROSSO (1975) *Instructor of Foreign Languages*

B.A., Haverford College; M.A., University of Pennsylvania

HAROLD RUBIN (1977) *Assistant Professor of Special Education*

A.B., Temple University; Ph.D., Ohio State University

PHILIP B. RUDNICK (1968) *Director, Pre-Professional Programs; Professor of Chemistry*

B.A., Yeshiva University; B.A., Ph.D., Rutgers—The State University

JANE WESTON SADDORIS (1971) *Instructor of Communications and Theatre*

B.S., West Chester State College; M.A., in Education, Villanova University

BERNICE J. SALUP (1976) *Assistant Professor of Childhood Studies and Reading*

B.S., M.Ed., Ed.D., Temple University

GLENN W. SAMUELSON (1965) *Professor of Sociology*

B.A., Wheaton College; M.A.R., Eastern Baptist Theological Seminary; M.A., Temple University; M.A., University of Pennsylvania; M.S., St. Joseph's University; Ed.D., University of Maryland

BHIM SANDHU (1978) *Assistant Professor of Political Science*

B.A., Panjab University (India); M.A., University of Texas; Ph.D., University of Missouri

HAROLD R. SANDS (1969) *Professor of Psychology*

B.A., Rutgers—The State University; M.Ed.,

Temple University; Ph.D., Pennsylvania State University

HARRY G. SCHALCK (1964) *Chairperson, Department of History, Professor*  
A.B., Ursinus College; M.A., Ph.D., Clark University

ROBERT SCHICK (1961) *Professor of Keyboard Music*  
B.A., Swarthmore College; M.A., Columbia University; A.Mus.D., Eastman School of Music

LISELOTTE M. SCHMIDT (1970) *Chairperson, Department of Music History and Literature; Professor*  
B.Mus., Converse College; M.A., New York University; M.Mus., Manhattan School of Music; Ed.D., Columbia University; Fulbright Scholar (University of Munich, Germany, 1957-58)

R. GERALD SCHOELKOPF (1969) *Assistant Professor of Library Services*  
B.A., Villanova University; M.S.L.S. McGill University

EUGENE W. SCHOOLER (1961) *Professor of Economics*  
B.S., Fort Hays Kansas State College; M.B.A., University of Kansas; A.M., Ph.D., Harvard University

FRANCOISE E. SCHREMMER (1979) *Assistant Professor of Mathematics*  
Propedeutique de Mathematique, Maitrise de Mathematique, D.E.S., University of Paris; M.A., Ph.D., University of Pennsylvania

LEROY SCHUETTE (1973) *Director, Evening and Non-Degree Programs; Associate Professor, Educational Services*  
B.A., Yankton College; M.A., University of Michigan; Ph.D., University of Utah

TERES E. SCOTT-MYERS (1981) *Special Assistant to the President and Director of Affirmative Action*  
B.S., M.S., Howard University

JANET C. SEIDEL (1973) *Associate Professor of Criminal Justice*  
B.S., Drexel University; M.Ed., West Chester State College; Ed.D., Temple University

ANNE E. SELL (1978) *Assistant Professor of Nursing*  
B.S.N., College Misericordia; M.S.N., Marquette University

GUS V. SERMAS (1971) *Chairperson, Department of Art, Associate Professor*  
B.A., Baylor University; B.F.A., B.S., University of Texas; M.F.A., University of Wisconsin

NEIL A. SERPICO (1967) *Professor of Physical Education*  
B.A., University of New Hampshire; Ed.M.,

Boston University; Ed.D., University of Alabama

ANNE SESSA (1968) *Professor of History*  
B.A., Swarthmore College; Ph.D., University of Delaware

WILLIAM H. SEYBOLD, JR. (1967) *Associate Professor of Mathematics*  
B.S., Temple University; M.A., Northwestern University

HAROLD E. SHAFFER (1962) *Associate Professor of History*  
A.B., Susquehanna University; Litt.M., University of Pittsburgh

LEIGH S. SHAFFER (1980) *Assistant Professor of Psychology*  
B.S., M.S., Wichita State University; Ph.D., The Pennsylvania State University

BERNICE SHAPIRO (1969) *Assistant Professor of Art*  
Cooper Union School of Architecture; B.F.A., Philadelphia College of Art; M.Ed., Tyler School of Art

JOHN C. SHEA (1967) *Professor of Political Science*  
B.A., Allegheny College; M.A., University of Pennsylvania; Ph.D., University of Pittsburgh

MAURA J. SHEEHAN (1980) *Assistant Professor of Health*  
B.S., Lowell Technological Institute; M.S., University of Lowell

JANE E. SHEPPARD (1953) *Associate Professor of Vocal and Choral Music*  
B.Mus.Ed., Westminster College (Pa.); M.A., Columbia University; M.Mus., Indiana University

ROBERT R. SHINEHOUSE (1966) *Associate Professor of Psychology*  
B.S., Ursinus College; M.A., Temple University

IRENE G. SHUR (1956) *Director, Ethnic Studies; Professor of History*  
B.S., Ohio State University; M.Ed., University of Delaware; Ed.D., University of Pennsylvania

JAY SILVERMAN (1977) *Associate Professor of Counselor, Secondary, and Professional Education*  
A.B., University of Chicago; Ph.D., New York University

CAROLYN G. SIMMENDINGER (1958) *Associate Professor of Art*  
B.S., Kutztown State College; M.F.A. Tyler School of Art

ELEANOR B. SINCLAIR (1970) *Chairperson, Library Services; Assistant Professor of Library Services*

B.A., University of Delaware; M.L.S., Rutgers—The State University

IRA C. SINGLETON (1970) *Chairperson, Department of Music Education; Professor*  
B.S., West Chester State College; Ed.M., Temple University; Ph.D., New York University

HAROLD L. SKELTON (1968) *Associate Professor of Physics*

B.S., Case Institute of Technology; M.S., University of Delaware; Ph.D., University of Delaware

SUSAN SLANINKA (1975) *Assistant Professor of Nursing*

B.S.N., Villanova University; M.S.N., University of Pennsylvania

CARL M. SMITH (1971) *Assistant Professor of Accounting*

B.B.A., M.B.A., Temple University; C.P.A., Commonwealth of Pennsylvania

EDWARD D. SMITH (1972) *Professor of Psychology*

B.S., Shippensburg State College; M.Ed., Ed.D., Pennsylvania State University

ELIZABETH SMITH (1967) *Associate Professor of English*

B.A., Blue Mountain College; M.S., University of Southern Mississippi

FRANK A. SMITH (1964) *Professor of Physics*

B.S., Villanova University; M.A., Ed.D., Temple University

JAMES G. SMITH (1980) *Assistant Professor of Political Science*

B.A., Oklahoma State University; M.A., University of California

LIDA NELSON SMITH (1966) *Assistant Professor of Physical Education*

A.B., Bard College; M.A., Sarah Lawrence College

PHILIP D. SMITH, JR. (1967) *Professor of Foreign Languages*

B.A., Pepperdine University; M.A., University of Nevada; Ph.D., Ohio State University

NORBERT C. SOLDON (1963) *Assistant Chairperson, Department of History; Professor*

B.A., M.A., Pennsylvania State University; Ph.D., University of Delaware

CHARLES C. SOUFAS, JR. (1981) *Assistant Professor of Foreign Languages*

B.A., Emory University; M.A., University of South Carolina; Ph.D., Duke University

H. LEE SOUTHALL (1967) *Associate Professor of Instrumental Music*

B.S., West Chester State College; M.A., Trenton State College

JOSEPH M. SPIECKER (1968) *Chairperson, Department of Instructional Media Education; Associate Professor*

B.S., West Chester State College; Ed.M., Temple University; Ed.D., Nova University

THOMAS W. SPIERLING (1972) *Chairperson and Director of Counseling Center; Associate Professor*

B.A., M.A., Ph.D., Michigan State University

CHARLES A. SPRENKLE (1959) *Professor of Keyboard Music*

B.S., Johns Hopkins University; B.Mus., M.Mus., D.Mus.A., Peabody Conservatory of Music

RUTH S. STANLEY (1959) *Assistant Professor of Mathematics*

B.S., M.A., University of Oklahoma

JACK STEINBERG (1978) *Assistant Director, Computer Center, Associate Professor, Educational Services*

B.A., M.A., Temple University

JAY P. STEINMETZ (1967) *Assistant Professor of Instructional Media Education*

B.S., Millersville State College, M.Ed., West Chester State College

JOHN R. STEINMETZ (1965) *Associate Professor of Health*

B.S., M.Ed., Ed.D., Temple University

LESLIE STEVENSON, JR. (1972) *Psychologist, Counseling Center; Assistant Professor*

B.S., M.S., University of Utah

JOSEPH A. STIGORA (1973) *Assistant Professor of Speech Pathology and Audiology*

B.S., Bloomsburg State College; M.A., Ph.D., Bowling Green University

PAUL STOLLER (1980) *Assistant Professor of Anthropology*

B.A., University of Pittsburgh; M.S., Georgetown University; Ph.D., University of Texas at Austin

GORDON R. STORHOLM (1980) *Professor of Business Administration*

B.S., LaSalle College; M.B.A., Ph.D., University of Pennsylvania

RICHARD L. STRAYER (1956) *Director, School of Education; Director, Instructional Media Services; Professor, Educational Services*

B.S., West Chester State College; M.Ed., University of Delaware; Ed.D., Temple University

PAUL A. STREVELER (1970) *Professor of Philosophy*

B.A., St. John's University (Minnesota); Ph.D., University of Wisconsin

C. WAYNE STRINGER (1971) *Professor of Music Education*  
B.S., Ohio State University; M.A., Ed.D., Columbia University; Diploma in Kodaly, Ezergom, Hungary

FREDERICK R. STRUCKMEYER (1969) *Professor of Philosophy*  
B.A., King's College (N.Y.); A.M., Ph.D., Boston University

CHARLES H. STUART (1968) *Acting Director of Academic Development; Professor of History*  
B.A., Houghton College; M.A., Bradley University; Ph.D., Boston University

ELENA F. STUART (1977) *Instructor of Speech Pathology and Audiology*  
B.A., Emerson College; M.S., Purdue University

R. GODFREY STUDENMUND (1956) *Assistant Vice-President for Admissions and Student Affairs, Associate Professor of Education*  
B.S., Shippensburg State College; Ed.M., Temple University

JAMES D. SULLIVAN (1967) *Director, School of Music, Associate Professor of Music Theory and Composition*  
B.S., West Chester State College; M.A., Eastman School of Music

JANE B. SWAN (1965) *Director, Women's Center; Professor of History*  
B.A., Swarthmore College; M.A., Ph.D., University of Pennsylvania

EMILY T. SWARTLEY (1970) *Assistant Professor of Instrumental Music*  
B.Mus., Eastman School of Music; M.Mus., Temple University

ROY D. SWEET (1953) *Chairperson, Department of Vocal and Choral Music; Associate Professor*  
B.S., State University of New York College at Fredonia; M.Mus., Eastman School of Music

JULIAN M. SWIREN (1964) *Associate Professor of Counselor Education*  
B.S., M.S., University of Pennsylvania; D.Ed., The Pennsylvania State University

ANN M. SWOPE (1976) *Assistant Professor of Nursing*  
B.S., University of Pennsylvania; M.P.H., Johns Hopkins University

PARTICK J.M. SYLVESTER (1968) *Professor of Economics*  
B.A., St. Francis Xavier University (Canada); M.A., University of New Brunswick (Canada); M.A., University of Pennsylvania; Ph.D., Bryn Mawr College

ROBERT J. SZABO (1974) *Assistant Professor of Childhood Studies and Reading*

B.S., Kutztown State College, M.Ed., Ed.D., Lehigh University

JOHN C. TACHOVSKY (1970) *Associate Professor of Geography*  
B.S., M.Ed., West Chester State College; Ph.D., University of Cincinnati

CASSIA TARASCHI (1978) *Instructor, Educational Services*  
B.S., M.A., West Chester State College

BRADLEY E. TAYLOR (1973) *Assistant Professor of Physical Education*  
B.S., M.Ed., Temple University

S. KEITH TAYLOR (1968) *Professor of English*  
B.A., Ursinus College; M.A., University of Pennsylvania; Ed.D., Temple University

SANDRA J. THIELZ (1973) *Assistant Professor of Physical Education*  
B.S., Southern Connecticut State College

GEORGE M. THOMAS (1966) *Assistant Chairperson, Department of Counselor, Secondary, and Professional Education; Professor*  
B.S., West Chester State College; M.Ed., University of Delaware; Ed.D., Temple University

WESLEY W. THOMAS (1979) *Assistant Professor of Geography*  
B.S., University of Maine; M.S., West Chester State College; Ph.D., University of Cincinnati

DAVID G. THURBON (1963) *Assistant Professor of English*  
A.B., M.Litt., University of Pittsburgh

WILLIAM TOROP (1971) *Director of Academic Services and Special Assistant to the Provost; Professor of Chemistry*  
A.B., M.S., Ed.D., University of Pennsylvania

THOMAS TREADWELL (1968) *Associate Professor of Psychology*  
B.A., Morris Harvey College; M.S., University of Bridgeport; Moreno Institute, New York; Temple University (certified psychodramatist)

JOHN N. TREZISE (1969) *Assistant Chairperson, Department of Physical Education; Associate Professor*  
B.S., West Chester State College; M.Ed., University of Pittsburgh

MILAN TRNKA (1962) *Assistant Professor of Physical Education*  
A.B., Syracuse University; M.S., University of Illinois

C. JAMES TROTMAN (1979) *Assistant Professor English*  
B.A., M.Ed., Penn State University; Ed.D., Columbia University

EUGENIA R. TRUESDELL (1969) *Associate Professor of Library Services*

A.B., Elmira College; B.S., Syracuse University; M.S.L.S., Drexel University

JOHN J. TURNER, JR. (1965) *Professor of History*

A.B., Muhlenberg College; M.A., University of Rhode Island; Ph.D., Columbia University

KATHLEEN A. TWEETEN (1981) *Assistant Professor of Biology*

B.S., North Dakota State University; Ph.D., Kansas State University

JOY VANDEVER (1964) *Associate Professor of Vocal and Choral Music*

B.S., M.Ed., West Chester State College

RICHARD K. VELETA (1965) *Professor of Keyboard Music*

B.Mus., M.Mus., D.Mus., Northwestern University

C. RALPH VERNON (1966) *Associate Professor of Mathematics*

B.A., University of Pittsburgh; M.Div., Westminster Theological Seminary; M.S. in Ed., University of Pennsylvania

MARY A. VINQUIST (1975) *Assistant Professor of Music History and Literature (Part-time)*

B.M., St. Olaf College; M.A., Indiana University; Ph.D., University of North Carolina

JACQUES C. VOOIS (1969) *Associate Professor of Keyboard Music*

B.Mus., Oberlin College; M.Mus., Manhattan School of Music

EARL E. VOSS (1971) *Associate Professor of Health*

B.S., West Chester State College; M.Ed., Temple University

JACK WABER (1976) *Chairperson, Department of Biology; Associate Professor*

B.A., Hope College, Michigan; Ph.D., University of Hawaii

G. ALAN WAGNER (1967) *Associate Professor of Vocal and Choir Music*

B.Mus., Northwestern University; M.F.A., Carnegie-Mellon University

ELIZABETH F. WAGONER (1979) *Associate Professor of Nursing*

R.N., White Plains Hospital School of Nursing; B.S.N., Ohio State University; M.A. in Nursing Ed., Columbia University; Ed.D. Rutgers University

RAYMOND L. WALTERS (1977) *Assistant Professor of Criminal Justice*

B.S., M.S., Michigan State University

SHIRLEY ANN WALTERS (1963) *Director, Education Field Experiences, Professor of Counselor, Secondary, and Professional Education*

B.S., Millersville State College; M.A., University of Michigan; D.Ed., Temple University

JOHN W. WARD (1961) *Associate Professor of English*

A.B., M.A., Miami University; Ph.D., University of Delaware

JOHN W. WEAVER (1973) *Professor of Mathematics*

B.A., Eastern Mennonite College; M.A., University of Delaware; Ph.D., Johns Hopkins University

RICHARD J. WEBSTER (1967) *Professor of History*

A.B., Lafayette College; M.A., University of Delaware; A.M., University of Pennsylvania; Ph.D., University of Pennsylvania

SUSAN W. WEBSTER (1967) *Assistant Professor of Biology*

A.B., Bucknell University; M.Ed., West Chester State College

RUTH I. WEIDNER (1967) *Assistant Professor of Library Services*

B.A., Hood College; M.S.L.S., Drexel University; M.A., University of Delaware

MICHAEL S. WEISS (1978) *Acting Director of School of Health Sciences; Chairperson, Department of Communicative Disorders; Associate Professor of Speech Pathology and Audiology*

B.A., Long Island University; M.S., Ph.D., Purdue University

ROBERT H. WEISS (1967) *Professor of English*

A.B., University of Pennsylvania; A.M., Ph.D., Temple University

JAMES R. WELLS (1968) *Professor of Music History and Literature*

B.S., West Chester State College; Ed.M., Temple University; Ed.D., Columbia University

THEODORA L. WEST (1963) *Professor of English*

B.A., University of Akron; M.A., Ohio State University; Ph.D., University of Pittsburgh

LINWOOD J. WHITE (1968) *Associate Professor of Art*

B.F.A., Maryland Institute College of Art; M.F.A., University of Pennsylvania

W. BENJAMIN WHITTEN (1959) *Associate Professor of Keyboard Music*

B.Mus., M.Mus., Peabody Conservatory of Music

PAUL R. WIDICK (1967) *Professor of Earth Sciences*

B.A., M.Ed., Wayne State University; M.A., Eastern Michigan University; Ed.D., Temple University

MARK F. WIENER (1965) *Assistant Professor of Mathematics*  
B.S., West Chester State College; A.M., University of Illinois

HARRY WILKINSON (1948) *Chairperson, Department of Music Theory and Composition; Professor*  
B.S., Ed.M., Temple University; Ph.D., Eastman School of Music

LLOYD C. WILKINSON (1960) *Associate Professor of Physical Education*  
B.S., West Chester State College; M.A., Villanova University

ARDIS M. WILLIAMS (1967) *Associate Professor of Chemistry*  
A.B., Mount Holyoke College; A.M. Vassar College

EDWIN L. WILLIAMS (1968) *Associate Professor of Philosophy*  
B.A., West Chester State College

LOIS M. WILLIAMS (1955) *Associate Professor of Vocal and Choral Music*  
B.Mus., Western Michigan University; M.A., Columbia University; Fulbright Scholar (Germany 1853-1955)

THOMAS B. WILLIAMS (1961) *Professor of Counselor, Secondary, and Professional Education*  
B.S., Salisbury State College; Ed.D., Temple University

JOHN M. WINTERMUTE (1966) *Associate Professor of Physical Education*  
B.S., Ithaca College; Ed.M., State University of New York at Buffalo

JACK E. WISE (1968) *Associate Professor of English*  
B.S., M.Ed., Shippensburg State College

PHILIP WITONSKY (1974) *Associate Professor of Chemistry*  
B.S., Queens College, Ph.D., University of Minnesota

PAUL WOLFSON (1978) *Assistant Professor of Mathematics*  
A.B., Columbia University; M.S., Ph.D., University of Chicago

RICHARD I. WOODRUFF (1966) *Professor of Biology*  
B.S., Ursinus College; M.Ed., West Chester State College; Ph.D., University of Pennsylvania

RONALD B. WOODS (1967) *Professor of Physical Education*  
B.S., East Stroudsburg State College; M.S., University of Massachusetts; Ph.D., Temple University

STANLEY J. YAROSEWICK (1969) *Coordinator, Faculty of Arts and Sciences, Professor of Physics*  
B.S., University of New Hampshire; M.S., Ph.D., Clarkson College of Technology

DANIEL J. YEH (1968) *Associate Professor of Library Services*  
B.A., National Taiwan University; M.S.L.S. Drexel University

RICHARD B. YODER (1962) *Director of Athletics, Associate Professor of Physical Education*  
B.S., West Chester State College; M.A., Villanova University

EDWIN L. YOUNG (1960) *Professor of Physical Education*  
B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa

ROBERT J. YOUNG (1965) *Professor of History*  
B.S., Temple University; M.A., Ph.D., University of Pennsylvania

CARLOS R. ZIEGLER (1969) *Chairperson, Department of Childhood Studies and Reading; Professor*  
A.B., Elizabethtown College; M.Ed., Ed.D., Temple University

ELSIE B. ZIEGLER (1965) *Professor of English*  
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CORNELIA H. ZIMMERMAN (1977) *Associate Professor of Childhood Studies and Reading*  
B.S., Kutztown State College; M.Ed., Ed.D., Lehigh University

MARTIN ZLOTOWSKI (1973) *Associate Professor of Special Education*  
A.B., New York University; M.A., Ph.D., Michigan State University

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# ACADEMIC CALENDAR 1982-83

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## FALL SEMESTER 1982

September 7, 8, Tuesday, Wednesday	Late Scheduling, Faculty Meetings (as per departmental announcements)
September 9, Thursday	Classes begin
November 25, Thursday	Thanksgiving Recess begins (8:00 a.m.)
November 29, Monday	Thanksgiving Recess ends (8:00 a.m.)
December 17-23	Examination Period
December 18, Saturday	Commencement
December 23, Thursday	Fall Semester ends (close of classes)

## SPRING SEMESTER 1983

January 19-21, Wednesday-Friday	Late Scheduling.
January 24, Monday	Classes begin
March 5, Saturday	Mid-term recess begins (close of classes)
March 14, Monday	Mid-term recess ends (8:00 a.m.)
April 1, Friday	Spring break begins (8:00 a.m.)
April 4, Monday	Spring break ends (8:00 a.m.)
May 13, Friday	Reading Day (no classes)
May 14-20	Examination period
May 20, Friday	Spring Semester ends (close of classes)
May 21, Saturday	Commencement

## SUMMER SESSIONS 1983

Pre Session	Monday, June 6 - Friday, June 24
Regular Session	Monday, June 27 - Friday, August 5
Post Session	Monday, August 8 - Friday, August 26

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**West Chester**  
STATE COLLEGE  
West Chester, Pennsylvania • 19380

Non-Profit Organization  
**U.S. POSTAGE PAID**  
West Chester, PA 19380  
PERMIT NO. 309

**THIRD CLASS**

# West Chester

STATE COLLEGE



*SUMMER* **1983** *SESSIONS*  
**GRADUATE COURSES**

## Accreditation

West Chester State College is accredited by The Middle States Association of Colleges and Secondary Schools, The National Council for Accreditation of Teacher Education, The American Association for Health, Physical Education, and Recreation, The National Athletic Training Association, The National Association of Schools of Music, The Council on Social Work Education, The National League for Nursing, and The American Chemical Society. West Chester State College is a member of The Council of Graduate Schools in the United States.

### Important Notes

- The times and days of classes are subject to change.
- Each summer session offering is contingent upon adequate enrollment in the judgment of college administration.
- The catalog is not to be regarded as an irrevocable contract between the student and West Chester State College.
- Admission to a summer session does not imply admission for the academic year.
- Students may have other persons register for them.

## Non-Discrimination Policy

West Chester State College is committed to a policy of non-discrimination in compliance with all applicable Federal and State statutes. Education programs, activities, and employment at the college are provided to individuals without regard to marital status, race, color, national origin, sex, sexual orientation, age, or religious creed. In addition, the college endeavors to remove any barriers and to provide opportunity for education and employment of handicapped persons. This policy of non-discrimination applies to all students, employees, applicants for admission and employment, and to all participants in college-sponsored activities. Inquiries regarding compliance with this policy may be directed to the Director of Affirmative Action, Reynolds Hall, West Chester State College.

# West Chester

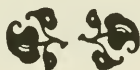
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STATE COLLEGE

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## GRADUATE COURSES SUMMER 1983 SESSIONS



### TELEPHONES (Area Code 215)

Summer Sessions	436-2230
Registrar	436-3541
Graduate Office	436-2243

The above offices are located in Learning and Research Center, Corner of High Street and Rosedale Avenue. Hours for the Graduate and Summer Sessions Offices are 8:00 a.m. to 4:00 p.m. Monday through Friday. The Office of the Registrar is open to the public Monday through Friday 9:00 a.m. to 12:00 Noon and 1:00 to 3:00 p.m.

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# About West Chester

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West Chester State College is located in the rolling hills of Chester County just 25 miles west of downtown Philadelphia. It offers students many of the advantages of both the city and the countryside. Near such historical, cultural, and recreational attractions as Independence Hall, Brandywine River Museum, Longwood Gardens, and Valley Forge Music Fair, West Chester is an ideal place to spend the summer.

This summer the college will be marking a milestone when on July 1 it becomes West Chester University of Pennsylvania. An advance long awaited by the college's excellent and dedicated faculty, status as a university will enable West Chester to serve its students even better.

West Chester State College's 385-acre campus provides students with modern classrooms and laboratories, an excellent library and comfortable dormitories. The college is within walking distance of downtown West Chester and public transportation into Philadelphia.

During the regular academic year, West Chester State College enrolls some 6,000 students in its full-time undergraduate programs, 1,500 students as part-time undergraduates, and 1,200 students in graduate programs. Students may pursue associate, baccalaureate, and master's degrees as well as enroll in a number of certification and other non-degree programs.

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Programs of Study	10
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Post Session Offerings	28
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# Scheduling and

Students must register for all courses in any program by the registration dates and deadlines, even when respective courses start at irregular periods other than the three sessions . . .

## SCHEDULING AND REGISTRATION PERIOD:

Monday through Friday (July 4 excepted) from April 18, 1983 through May 26, 1983 for Pre Session; through June 17, 1983 for Regular Session; and through July 29, 1983 for Post Session. **Note: Earlier deadlines are in effect for registration by mail.** See the Registration schedule on pages 6-7 or the Summer Sessions Calendar, inside back cover.

Students may schedule, register and pay fees for any or all three summer sessions by meeting the appropriate deadlines.

**PERMITS-TO-REGISTER** for previously enrolled students (those active within the past two years) will be mailed in advance of the scheduling period. New or "inactive" students must file an application (no charge) for graduate study in the Office of Graduate Studies in order to obtain a Permit-To-Register.

**SPECIAL NOTE:** All students should consult with their departmental advisors for special scheduling instructions and obtain required approvals (signatures) as indicated.

## SCHEDULING AND REGISTRATION PROCEDURES

1. Complete *thoroughly and accurately* the Permit-to-Register card and obtain approvals (signatures) from the appropriate academic department.
2. Send or deliver completed Permit-to-Register card to the Office of Graduate Studies. *Cards that are not properly completed including*

# Registration



*the signature of the department's representative will be returned to the student and delay registration.*

3. Students delivering Permit-to-Register cards *in person* during the scheduling and registration period and within the deadlines specified under Calendar and Registration Schedule may complete their registration and pay fees for any or all summer sessions *during the one visit*. Students should allow at least 30 minutes to complete the scheduling process.
4. Students who mail Permit-to-Register cards so as to be received on or before May 20, 1983 for Pre Session; June 10, 1983 for Regular Session and July 22, 1983 for Post Session will be billed by mail. Cards received after these dates for the respective session will be returned to the student to be presented for in-person registration and payment of fees.
5. Students who do not meet the deadlines as outlined under Calendar and Registration Schedule must report in person during the appropriate *LATE* Registration and pay the \$15.00 Late Registration Fee.
6. Students have completed scheduling and registration only when their records have been entered on the college data base and all fees have been paid.

## Course Changes

After the deadline dates for mail and in-person registration, the course change periods are:

**Pre and Post Sessions:** The first Monday after registration

**Regular Session:** The first Monday and Tuesday after registration

Go to the Office of the Registrar.

Course changes may also be made before the scheduling deadline of a session in the Registrar's Office.

For additional information see the calendar and registration schedule on pages 6 and 7.



# Calendar & Register

## 1983

### NOTE:

Scheduling and payment begin April 18th and continue until the termination date given below for each session. In-person registration takes place in the Learning and Research Center.

Students at *late registration/late payment* schedule according to the first letter of their last name. No student may register at other than the scheduled hour and date. However, another person may schedule and register for you. Late-registration takes place in the Learning and Research Center.

### PRE SESSION

Beginning of Scheduling Period	Monday, April 18
Deadline for Mail Registration and Payment	Friday, May 20
Deadline for In-person Registration and Payment	Thursday, May 26
Late Registration (In-person only) in the Learning and Research Center	Thursday, June 2
(\$15.00 Late Fee)	
A through L	1:30 to 3:00 p.m.
M through Z	3:00 to 4:30 p.m.
A through Z	5:30 to 7:00 p.m.
Classes begin 8:00 a.m.	Monday, June 6
Classes end	Friday, June 24

### REGULAR SESSION

Beginning of Scheduling Period	Monday, April 18
Deadline for Mail Registration and Payment	Friday, June 10
Deadline for In-person Registration and Payment	Friday, June 17

# Registration Schedule




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Late Registration (In-person only) in the Learning and Research Center (\$15.00 Late Fee)	Thursday, June 23
A through L	1:30 to 3:00 p.m.
M through Z	3:00 to 4:30 p.m.
A through Z	5:30 to 7:00 p.m.
Classes begin 8:00 a.m.	Monday, June 27
Holiday	Monday, July 4
Classes end	Friday, August 5

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## POST SESSION

Beginning of Scheduling Period	Monday, April 18
Deadline for Mail Registration and Payment	Friday, July 22
Deadline for In-person Registration and Payment	Friday, July 29
Late Registration In-person only in the Learning and Research Center (\$15.00 Late Fee)	Thursday, August 4
A through L	1:30 to 3:00 p.m.
M through Z	3:00 to 4:30 p.m.
Classes begin 8:00 a.m.	Monday, August 8
Classes end	Friday, August 26

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## TELEPHONES (AREA CODE 215)

Summer Sessions	436-2230
Registrar	436-3541
Graduate Office	436-2243

The Summer Sessions and Graduate Offices are open Monday through Friday, 8:00 a.m. to 4:00 p.m. The Office of the Registrar is open to the public Monday through Friday 9:00 a.m. to 12:00 noon and 1:00 - 3:00 p.m.

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# Fees and

## Special Notes:

- Fees are subject to change without notice.
- For more up-to-date information at any given time, contact the Student Accounts Office, 215-436-2552.
- All charges for a session must be paid by deadline payment dates or a late fee of \$15.00 will be incurred. Payments cannot be made on a deferred basis.
- Fees may be paid by check or money order payable to: Commonwealth of Pennsylvania. Your check or money order serves as your receipt. Graduate fees may also be paid by VISA or Master Card.
- IN-STATE AND OUT-OF-STATE GRADUATE STUDENTS PAY THE SAME BASIC FEE.

## Basic Fee

\$82.00 per semester hour of credit.

## Housing Fee

Rooms and Meals

Regular Session—\$354.00

Pre or Post Session—\$177.00

No reduction for absences of a few days.

Private Room: \$17.00 extra per week.

## Community Center Fee

Pre or Post Session—\$1.00

Regular Session—\$2.00

## Music Instruction Fee

Regular Session

Piano, Organ, Instrument or Voice, two half hour lessons per week—\$55.00

## Pipe Organ for Practice

Regular Session—\$12.00

Pre or Post Session—\$6.00

No charge for piano for practice

# Expenses



## Rental of Band or Orchestral Instruments

Regular Session—\$6.00

Pre or Post Session—\$3.00

## Late Registration Fee

A \$15.00 late registration fee is charged to students who fail to pay by the designated day of each session.

## Refunds

All refund requests must be made in writing during the session for which a refund is requested. Contact the Office of the Registrar, Learning and Research Center.

## Basic Fee Refunds

Students who withdraw after registration and before the first scheduled class meeting are entitled to a refund of all but \$10 of the basic fee.

Withdrawals during the first week of Pre or Post Sessions—a 50% refund. Withdrawals during the first and second week of Regular Session—a 50% refund. There is no refund of the basic fee after the first week of Pre or Post Session or after the second week of Regular Session. The Community Center Fee is not refundable.

There will be no refund of housing fees after classes begin; meal fee refunds are on a weekly prorated basis.





# Programs

## CERTIFICATION AND/OR MASTER OF EDUCATION

Biology

Counseling

Elementary School Counseling

Secondary School Counseling

Elementary Education

English

French

German

Health

Gerontology

Public Health

School Health

Health and Physical Education

Instructional Media

Latin

Mathematics

Reading

Secondary Education

Social Science

History

Spanish

Special Education

## MASTER OF ARTS

Biology

English

French

Geography

History

Mathematics

Applied Computer Science

Mathematics Education

Pure Mathematics

Music History

Physical Science

Chemistry

General

Geology and Astronomy

Physics

Psychology

Clinical

General

Industrial/Organizational

# of Study



Social Science

History

Political Science

Psychology

Spanish

Speech Pathology

Teaching English as a Second Language

## MASTER OF MUSIC

Music Education

Music Theory

Music Composition

Performance

Accompanying

Instrumental

Keyboard

Piano Pedagogy

Vocal

## MASTER OF SCIENCE

Administration

Health

Leadership for Women

Psychology

Public Administration

Social Work

Urban and Regional Planning

Chemistry

Clinical

General

Computer Science

Counseling

Higher Education Counseling

Criminal Justice

Educational Research

Health

Environmental

Gerontology

Public Health

School Health

Health and Physical Education

Instructional Media



# Academic

## Credits

Credits are usually earned at the rate of one semester hour for each week of summer session. A student attending all three sessions normally earns 12 credits.

West Chester State College students wishing to carrying more than six semester hours in Regular Session must secure permission from their advisors.

## Applying for Admission

For an application form and copy of the Graduate Catalog which contains information on admission requirements and West Chester State College's graduate programs, call, write or come to

The Office of Graduate Studies

Room 143

Learning and Research Center

West Chester State College

West Chester, Pa. 19380

Telephone: (215) 436-2243

## College Regulations and Policies

The class-absence policy for the academic year applies in summer. All academic policies are as noted in the Graduate Catalog.

## Withdrawal from a Course in Summer Sessions

Students who stop attending classes in which they are enrolled will receive a *WP* or a *WF* for the course *if they have filed the proper withdrawal forms*. In order to withdraw officially from summer sessions classes, a student must submit a completed summer session withdrawal form to the Office of the Registrar by June 15 for Pre-Session, July 18 for Regular Session, and August 17 for Post Session.

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# Information

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## Housing . . .

Housing on campus is available to summer graduate students. Comfortably appointed dormitories are conveniently located near the two primary student service facilities, Lawrence Center and Sykes College Union Building. *To apply for summer housing, write to*

Housing Office  
206 Sykes College Union Building  
West Chester State College  
West Chester, Pa. 19380  
(215) 436-3305

This written application should be received *at least two weeks* prior to the beginning of the session for which housing is required.



# Pre Session Offerings



Monday, June 6  
through  
Friday, June 24

Unless noted otherwise, classes meet Monday through Thursday.

## Art

4:00 - 8:00 p.m.

ART 551-21 Art Education in the Elementary School (3)

ART 565-21 Crafts: Weaving I (3)

ART 566-21 Crafts: Weaving II (3)

ART 567-21 Crafts: Weaving III (3)

5:00 - 9:00 p.m.

ART 531-21 Ceramics I—Ceramics Workshop (3)

ART 532-21 Ceramics II—Ceramics Workshop (3)

ART 533-21 Ceramics: Studio Problems—Ceramics Workshop (3)

ART 534-21 Ceramics: Independent Projects—Ceramics Workshops (3)

## Biology

5:00 - 8:00 p.m.

BIO 503-21 Mammalian Physiology (3)

## Chemistry

TBA

CHE 550-21 Internship (3) Majors Only

CHE 550-22 Internship (5) Majors Only

CHE 610-21 Thesis (3) Majors Only

CHE 610-22 Thesis (6) Majors Only

## Childhood Studies and Reading

4:30 - 7:30 p.m.

EDE 543-21 Creative Expression in the Elementary School (3)

EDE 584-21 Workshop in Early Childhood Education (3)

EDE 589-21 Workshop in Teaching Skills to Combat Sexism (3)

EDR 510-21 Foundations of Reading Instruction: K-12 (3)

EDR 521-21 Reading Clinic Practicum and Seminar I (3)

## Communicative Disorders

**4:30 - 8:00 p.m.**

SPP 598-21 Workshop: Speech Pathology (Advanced Clinical Phonetics) (3) SPP 106 or equivalent required.

## Counselor, Secondary and Professional Education

**8:00 a.m. - 12:00 Noon**

EDC 598-21 Shyness and Assertion Workshop (3)

**6:00 - 9:30 p.m.**

EDC 567-21 Group Dynamics (3) After Tuesday, June 7, will meet Fridays 5:00 - 9:00 p.m. and Saturdays 9:00 a.m. - 5:00 p.m. through June 25

EDF 510-21 Educational Foundations (3)

EDF 590-21 School Law (3)

EDF 598-21 Communicative Skills for Teachers (3) See Workshop Description

EDP-550-21 Advanced Educational Psychology (3)

## English

**8:45 a.m. - 4:30 p.m.**

ENG 599-21 Penna. Writing Project/Workshop in English: Holistic Assessment of Writing (1) June 22 and 23. See Workshop Description

**6:30 - 10:00 p.m.**

ENG 538-21 Modern British Poetry (3)

## Foreign Languages

**TBA**

French Majors Program (3-6) See Workshop Description

German Majors Program (3-6) See Workshop Description

Latin Majors Program (3-6) See Workshop Description

Spanish Majors Program (3-6) See Workshop Description

## Geology and Astronomy

**6:00 - 9:30 p.m.**

ESS 523-21 General Geologic Field Studies of South-eastern Penna. (3)

ESS 530-21 Principles of Oceanography (3)

## TBA

- ESS 591-21 Independent Study (1) Permission of Instructor  
 ESS 591-22 Independent Study (2) Permission of Instructor  
 ESS 591-23 Independent Study (3) Permission of Instructor

## Government and Planning

6:00 - 9:30 p.m.

- GEO 524-21 Population Processes (3)

## Health

6:00 - 9:30 p.m.

- HEA 523-21 Consumer Education (3)

## History

### TBA

- HIS 690-21 Independent Studies (3) Permission of Instructor  
 HIS 691-21 Thesis (3) Permission of Instructor  
 HIS 691-22 Thesis (3) Permission of Instructor

## Instructional Media

6:00 - 9:30 p.m.

- EDM 505-21 Theory of Motion Picture Production (3)

## Mathematical Sciences

6:00 - 9:45 p.m.

- CSC 550-21 Computers in Education (3)

## Music

For counseling by telephone or office appointment, call or write Dr. Ira Singleton, 8:00 a.m. - 4:30 p.m., April 25 - May 20, Swope Hall, Room 11, phone 215-436-2539. *All permits-to-register must be signed by Dr. Singleton.*

## Music Theory and Composition

- MTC 550-21 Acoustics of Music (3)

## Physical Education

6:00 - 9:30 p.m.

- PED 552-21 Learning on the Move (3)  
 PED 580-21 Sport Psychology (3) Open to all students including USSF candidates  
 PED 661-21 Contemporary Practices and Program Evaluation in Safety Education (3)
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 **Physics****TBA**

- PHS 592-21 Independent Studies (1)  
PHS 592-22 Independent Studies (2)  
PHS 592-23 Independent Studies (3)

 **Psychology****4:00 - 7:00 p.m.**

- PSY 509-21 Advanced Social Psychology (3) June 6 - July 18. Tuesday through Thursday  
PSY 512-21 Psychology of Personality (3) June 6 - July 8. Tuesday through Thursday  
PSY 517-21 Psychopathology (3) June 6 - July 8. Tuesday through Thursday

**6:00 - 9:30 p.m.**

- PSY 501-21 Introductory Statistics for the Behavioral Sciences (3)

**7:00 - 10:00 p.m.**

- PSY 490-21 Topical Seminar: Theory and Practice of Psychodrama (3). June 6 - July 8. Tuesday through Thursday. Open to undergraduates  
PSY 504-21 Research Methods and Statistics II (3) June 6 - July 8. Tuesday through Thursday  
PSY 506-21 Theories of Learning (3) June 6 - July 8. Tuesday through Thursday  
PSY 524-21 Psychometrics (3) June 6 - July 8. Tuesday through Thursday

**TBA**

- PSY 590-21 Independent Studies in Psychology (3)  
PSY 600-21 Research Report (3)  
PSY 610-21 Thesis (3)  
PSY 615-21 Clinical Practicum in Psychology (2)  
PSY 615-22 Clinical Practicum in Psychology (3)  
PSY 615-23 Clinical Practicum in Psychology (4)  
PSY 615-24 Clinical Practicum in Psychology (6)  
PSY 620-21 Practicum in School Psychology (3)  
PSY 630-21 Internship in Industrial/Organizational Psychology (3)
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# Regular Session Offerings



Monday, June 27  
through  
Friday, August 5  
Holiday—Monday, July 4

Unless noted otherwise, classes meet Monday through Friday.

## Administration

(See Government and Planning)

## Art

8:00 - 9:30 a.m.

ART 531-31 Ceramics I—Ceramics Workshop (3)

ART 532-31 Ceramics II—Ceramics Workshop (3)

ART 533-31 Ceramics: Studio Problems—Ceramics Workshop (3)

ART 534-31 Ceramics: Independent Projects—Ceramics Workshop (3)

9:30 - 11:00 a.m.

ART 546-31 Drawing: Independent Projects—Drawing Workshop (3)

11:00 a.m. - 12:30 p.m.

ART 516-31 Painting I—Painting Workshop (3)

ART 517-31 Painting II—Painting Workshop (3)

ART 520-31 Painting: Independent Projects—Painting Workshop (3)

## Biology

1:30 - 2:30 p.m.

BIO 550-31 Seminar in Organismic Biology (2)

## Chemistry

5:30 - 9:00 p.m.

CHE 533-31 Topics in Organic Chemistry—Organometallic Chemistry (3) Tuesday and Thursday

## TBA

CHE 550-31 Internship (3)

CHE 550-32 Internship (5)

CHE 610-31 Thesis (3)

CHE 610-32 Thesis (6)

## **Childhood Studies and Reading**

**8:00 - 9:30 a.m.**

EDE 530-31 Teaching Social Studies in the Elementary School (3)

EDR 516-31 Reading Disabilities (3)

EDR 540-31 Seminar in Reading (3)

**8:00 - 11:00 a.m.**

EDE 585-31 Workshop in Language Arts (3) First Three Weeks. See Summer Workshop

**9:30 - 11:00 a.m.**

EDE 549-31 Theory and Trends in the Language Arts (3)

EDE 551-31 Child Development and Behavior I (3)

EDE 587-31 Workshop in Affective Education (3) See Summer Workshop

EDR 522-31 Reading Clinic and Seminar II (3)

**11:00 a.m. - 12:30 p.m.**

EDE 522-31 Teaching the Communication Skills (3)

EDE 548-31 Curriculum Theory and Trends in Elementary Education (3)

EDE 553-31 Child Development and Behavior II (3)

EDR 541-31 Organization and Operation of Reading Programs: K-12 (3)

## **Communicative Disorders**

**1:00 - 3:15 p.m.**

SPP 543-31 Therapy for the Hearing Impaired (3) Monday, Tuesday and Wednesday

**3:30 - 5:45 p.m.**

SPP 526-31 Articulation Disorders (3) Monday, Tuesday and Wednesday

**TBA**

SPP 551-31 Graduate Clinical Practicum (3)

SPP 552-31 Affiliation Practicum (6)

## **Counselor, Secondary, and Professional Education**

**8:00 - 9:00 a.m.**

EDF 500-31 Methods and Materials of Research in Education (3)

EDF 501-31 Methods and Materials of Research and Study for Elementary Education Majors (3)

EDP 550-31 Advanced Educational Psychology (3)

**9:30 - 11:00 a.m.**

EDF 510-31 Educational Foundations (3)

EDP 569-31 Adolescent Development and Learning (3)

**11:00 a.m. - 12:30 p.m.**

EDF 504-31 Middle School Workshop (3) See Workshop Description

**1:00 - 4:30 p.m.**

EDP 598-31 Workshop on Stress Management and Burn-Out Avoidance (3) June 17 - July 15. See Workshop Description

**5:00 - 7:00 p.m.**

EDC 503-31 Introduction to Guidance Services (3)

EDC 520-31 Counseling for Human Differences (3)

EDC 567-31 Group Dynamics (3)

EDC 572-31 Counseling and Consultative Techniques in the Elementary Schools (3) Majors Only

EDC 573-31 Counseling and Consultative Techniques in the Secondary Schools (3) Majors Only

**7:00 - 9:00 p.m.**

EDC 578-31 Counseling Techniques with Adults (3)

**7:15 - 9:15 p.m.**

EDC 540-31 Assessment Methods in Guidance (3)

EDC 574-31 Group Procedures in the Elementary School (3) Majors Only

EDC 575-31 Group Procedures in the Secondary School (3) Majors Only

EDC 585-31 Contemporary Issues and Trends in Guidance (3) Majors Only

 **Criminal Justice**

**6:00 - 9:30 p.m.**

CRJ 500-31 History and Philosophy of Law and Justice (3) Tuesday and Thursday

 **English**

**8:00 - 9:30 a.m.**

ENG 535-31 Late Victorian and Edwardian Literature (3)

**9:00 a.m. - 12:00 Noon, 1:00 - 3:30 p.m.**

ENG 598-31 Penna. Writing Project/Advanced Composition Institute (Invitational) (4) July 18 - July 29. See Summer Workshop Description

**9:00 a.m. - 4:30 p.m.**

ENG 597-31 Penna. Writing Project/Summer Institute (Invitational) (6) June 27 - July 22. See Summer Workshop Description

ENG 597-32 Penna. Writing Project/Summer Institute (Invitational) (6) June 27 - July 22. See Summer Workshop Description.

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**9:30 - 11:00 a.m.**

ENG 525-31 Shakespeare's Tragedies and Histories (3)

ENG 579-31 Studies in American English (3)

**9:30 a.m. - 12:30 p.m.**

ENG 595-31 Penna. Writing Project/Teaching Composition (3) June 27 - July 15. See Summer Workshop Description

**9:30 a.m. - 3:30 p.m.**

ENG 599-31 Penna. Writing Project/Workshop in English: The Writing Process (1) June 29 - July 1. See Summer Workshop Description

**11:00 a.m. - 12:30 p.m.**

ENG 541-31 20th Century Drama (3)

ENG 570-31 British and Continental Short Story (3)

 **Foreign Languages****9:00 a.m. - 5:00 p.m.**

LAN 580-31 Seminar in Second Language Education. Topic: Individualizing and Personalizing Foreign Language Instruction (2) See Workshop Description

LAN 580-32 Seminar in Second Language Education. Topic: Individualizing and Personalizing Foreign Language Instruction (3) See Workshop Description

**TBA**

French Majors Program (3-6) See Workshop Description

German Majors Program (3-6) See Workshop Description

Latin Majors Program (3-6) See Workshop Description

Spanish Majors Program (3-6) See Workshop Description

 **Geography**

(See Government and Planning)

 **Geology and Astronomy****9:30 - 11:00 a.m.**

ESS 540-31 Introduction to Meteorology (3)

**TBA**

ESS 591-31 Independent Study (1) Permission of Instructor

ESS 591-32 Independent Study (2) Permission of Instructor

ESS 591-33 Independent Study (3) Permission of Instructor

## Government and Planning

8:00 - 9:30 a.m.

GEO 525-31 Urban and Regional Planning (3)

6:00 - 9:30 p.m.

ADM 502-31 Computers for Managers (3) Tuesday and Thursday

ADM 505-31 Organizing Human Resources (3) Tuesday and Thursday

ADM 506-31 Budget and Fiscal Management (3) Monday and Wednesday

GEO 505-31 Map Design (3) Monday and Wednesday

PAD 561-31 State and Local Government (3) Monday and Wednesday

## Health

8:00 - 9:30 a.m.

HEA 620-31 School Health Program (3)

8:30 a.m. - 4:30 p.m.

HEA 535-31 Health Workshop (3) Topic: Human Sexuality. July 11 - 15. See Summer Workshop Description

6:00 - 9:30 p.m.

HEA 606-31 Research Seminar I (2) Research advisors assigned June 27

HEA 607-31 Research Seminar II (2) Research advisors assigned June 27

HEA 608-31 Thesis Proposal (3) Research advisors assigned June 27

HEA 610-31 Thesis (3) Research advisors assigned June 27

HEA 611-31 Field Research (3) Research advisors assigned June 27

## History

11:00 a.m. - 12:30 p.m.

HIS 650-31 Seminar in American History (3) Examines Recent Trends

HIS 690-31 Independent Studies (3) Permission of Instructor

HIS 691-31 Thesis (3)

HIS 691-32 Thesis (3)

## Instructional Media

8:00 - 9:30 a.m.

EDM 501-31 Orientation to Instructional Media (3)

TBA

EDM 525-31 Basic Photography Workshop (6) July 11 - 22. See Workshop Description

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- EDM 526-31 Intermediate Photography Workshop (6)  
July 11 - 22. See Workshop Description
- EDM 590-31 Internship in Instructional Media (2)
- EDM 590-32 Internship in Instructional Media (3)
- EDM 590-33 Internship in Instructional Media (4)
- EDM 590-34 Internship in Instructional Media (5)
- EDM 590-35 Internship in Instructional Media (6)

## Mathematical Sciences

**8:00 - 9:30 a.m.**

- CSC 501-31 Introduction to Computers (BASIC) (3)
- CSC 505-31 Introduction to Computer Science (PASCAL) (3)
- MAT 512-31 Modern Algebra I (3)

**9:30 - 11:00 a.m.**

- CSC 501-32 Introduction to Computers (BASIC) (3)
- CSC 505-32 Introduction to Computer Science (PASCAL) (3)
- CSC 550-31 Computers in Education (3)
- MAT 575-31 Complex Analysis (3)

**11:00 a.m. - 12:30 p.m.**

- CSC 501-33 Introduction to Computers (BASIC) (3)
- MTE 507-31 Current Trends in Teaching Mathematics (3)

**6:00 - 9:30 p.m.**

- CSC 561-31 Simulation (3) Monday and Wednesday

**6:00 - 10:00 p.m.**

- CSC 508-31 Computer Organization (4)

**TBA**

- MAT 599-31 Independent Study (3)

## Music

For counseling by telephone or office appointment, call or write Dr. Ira Singleton, 8:00 a.m. - 4:30 p.m., April 25 - May 20, Swope Hall, Room 11, phone 215-436-2539. *All permits-to-register must be signed by Dr. Singleton.*

## Instrumental Music

**9:30 - 11:00 a.m.**

- ICO 512-31 Advanced Instrumental Conducting (2)  
July 5 - 29

**11:00 a.m. - 12:30 p.m.**

- INS 553-31 Woodwind Literature (3)
- INS 554-31 Brass Literature (3)

**12:30 - 2:00 p.m.**

- COR 511-31 Chamber Orchestra (1) July 18 - 29. Permission of Instructor

**2:00 - 3:30 p.m.**

CBA 511-31 Concert Band (1) July 5 - 29

## **BY APPOINTMENT**

Students desiring private instruction must register for three credits of music classes for each one credit of private instruction at the minor or major level.

501-502 Private instruction, Minor Lesson (1)

511-514 Private instruction, Major Lesson (1)

541-545 Private instruction, Advanced Lesson (2)

Performance area prefixes: BAR, BAS, BSN, CLT, FLU, FHR, GTR, HRP, OBO, PER, SAX, TBA, TPT, TRB, VCL, VLA, VLN

## **TBA**

INS 511-31 Instrumental Ensemble (2) Individualized Learning System

INS 696-31 Recital—Instrumental (1) Individualized Learning System

INS 697-31 Recital—Instrumental (2) Individualized Learning System

## **Keyboard Music**

**11:00 a.m. - 12:30 p.m.**

PIA 611-31 The Piano Concerto (3)

## **TBA**

PIA 501/502-31 Piano Minor (1)

PIA 511/514-31 Piano Major (1) Majors Only

PIA 541/545-31 Piano Advanced (2) Majors Only

## **Music Education**

**8:00 - 11:00 a.m.**

MUE 503-31 Philosophical Foundations of Music Education (3) July 18 - August 5

MUE 510-31 Current Trends in Music Education (3) June 27 - July 15. Majors Only

**9:00 a.m. - 5:00 p.m.**

MWE 536-31 Music Education Workshop (3) August 1 - 5. Majors Only. Additional Fee.<sup>1</sup>

MWH 538-31 Handbell Workshop (3) July 25 - 29. Additional Fee.<sup>1</sup>

MWK 536-31 Kodaly Workshop Level I (3) June 27 - July 9. Majors Only. Additional Fee.<sup>1</sup>

MWK 537-31 Kodaly Workshop Level II (3). July 11 - 22. Majors Only. Permission of Instructor. Additional Fee.<sup>1,2</sup>

<sup>1</sup> Register through Workshop Director only. Do not use regular registration procedure or permit-to-register cards.

<sup>2</sup> Completion of earlier Level(s) must be documented before admission to Levels II, III, and IV.

<sup>3</sup> Completion of Level I Certification must be documented before admission to Level II.

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- MWK 538-31 Kodaly Workshop Level III (3). June 27 - July 9. Majors Only. Permission of Instructor. Additional Fee.<sup>1,2</sup>
- MWK 539-31 Kodaly Workshop Level IV (3) July 11 - 22. Majors Only. Permission of Instructor. Additional Fee.<sup>1,2</sup>
- MWO 538-31 Orff Workshop Level I (3) July 11 - 22. Majors Only. Additional Fee.<sup>1</sup>
- MWO 539-31 Orff Workshop Level II (3) June 27 - July 9. Majors Only. Permission of Instructor. Additional Fee.<sup>1,3</sup>

### 11:00 a.m. - 2:00 p.m.

- MUE 500-31 Methods and Materials of Research (3) June 27 - July 15. Majors Only

### TBA

- MUE 691-31 Research Seminar in Music (2) Majors Only
- MUE 692-31 Research Seminar in Music (1) Majors Only
- MUE 698-31 Research Report (1) Majors Only
- MUE 699-31 Thesis in Music Education (1) Majors Only

## Music History

### 8:00 - 11:00 a.m.

- MHL 622-31 History of Jazz (3) First Three Weeks

### 9:30 - 11:00 a.m.

- MHL 651-31 Music in the United States (3)
- MHL 656-31 History of Musical Instruments (3)

### 11:00 a.m. - 12:30 p.m.

- MHL 655-31 History of Orchestral Music (3)

### TBA

- MHL 699-31 Thesis in Music History (3)

## Music Theory and Composition

### 11:00 a.m. - 12:30 p.m.

- MTC 552-31 Pedagogy Music Theory (3) Majors Only

## Vocal and Choral Music

### 8:00 - 11:00 a.m.

- VOC 591-31 Vocal Pedagogy (3) Majors Only. June 27 - July 15

### 9:00 a.m. - 5:00 p.m.

- VOC 539-31 The Broadway Musical Workshop (3) July 25 - 29. See Workshop Description

### 12:30 - 2:00 p.m.

- CHO 511-31 Masterworks Chorus (1) July 18 - August 5.

## Physical Education

**8:00 - 9:30 a.m.**

HPE 601-31 Test and Measurements Evaluations (3)

**9:30 - 11:00 a.m.**

HPE 600-31 Methods and Materials of Research (3)

PED 680-31 Scientific Principles of Coaching (3) Open to all students including USSF candidates

**11:00 a.m. - 12:30 p.m.**

PED 550-31 Elementary Physical Education Workshop (3)

PED 681-31 Scientific Bases for Physical Education (3)

**6:00 - 9:30 p.m.**

PED 561-31 Seminar in 4 Phase Driver Education (3)

### **TBA**

HPE 606-31 Research Project Seminar I (2)

HPE 607-31 Research Project Seminar II (2)

HPE 608-31 Thesis Seminar (3)

HPE 609-31 Independent Study (1) Prior approval of department and dean required

HPE 609-32 Independent Study (2) Prior approval of department and dean required.

HPE 609-33 Independent Study (3) Prior approval of department and dean required

HPE 609-75 Independent Study (1) Prior approval of department and dean required. Off-campus location

HPE 609-76 Independent Study (2) Prior approval of department and dean required. Off-campus location

HPE 609-77 Independent Study (3) Prior approval of department and dean required. Off-campus location

HPE 610-31 Thesis (3)

## Physics

**11:00 a.m. - 12:00 Noon**

PHS 502-31 Modern Trends in Teaching Physical Science (2)

### **TBA**

PHS 592-31 Independent Studies (1)

PHS 592-32 Independent Studies (2)

PHS 592-33 Independent Studies (3)

## Political Science

(See Government and Planning)

## 🌀 Psychology

**4:00 - 7:00 p.m.**

PSY 527-31 Behavior Modification (3) Tuesday through Thursday, July 11 - August 12

PSY 559-31 Psychotherapy (3) Tuesday through Thursday, July 11 - August 12

**7:00 - 10:00 p.m.**

PSY 445-31 Organizational Development (3) Tuesday through Thursday, July 11 - August 12

PSY 505-31 Advanced General Psychology (3) Tuesday through Thursday, July 11 - August 12

PSY 544-31 Individual Psychometric Techniques (3) Tuesday through Thursday, July 11 - August 12

## 🌀 Speech Communication and Theatre

**9:30 - 11:00 a.m.**

SPC 517-31 Directing and Producing the Documentary Television Program (3)

**11:00 a.m. - 12:30 p.m.**

SPC 515-31 General Semantics (3)



# Post Session Offerings

Monday, August 8  
through  
Friday, August 26

Unless noted otherwise, classes meet Monday through Friday.

## Art

8:00 a.m. - 12:00 Noon

ARH 580-41 European and U.S. Art (3)

## Chemistry

TBA

CHE 550-41 Internship (3)

CHE 550-42 Internship (5)

CHE 610-41 Thesis (3)

CHE 610-42 Thesis (6)

## Childhood Studies and Reading

8:00 a.m. - 12:00 Noon

EDE 580-41 Workshop in Elementary Education (3) See  
Workshop Description

## Counselor, Secondary and Professional Education

8:00 a.m. - 12:00 Noon

EDF 509-41 Contemporary Teaching Trends (3)

EDF 510-41 Educational Foundations (3)

EDO 511-41 Environmental Education Workshop (3)  
See Workshop Description

## Communicative Disorders

1:00 - 4:30 p.m.

SPP 560-41 Seminar: Speech Pathology (Standardized  
Programs for Fluency Therapy) (3)  
Monday through Thursday. SPP 524 or  
permission of instructor required.

## English

8:00 - 12:00 Noon

ENG 507-41 Twentieth Century Women Poets (3)

## Foreign Languages

7:00 - 9:30 p.m.

LAN 580-41 Seminar in Second Language Education—  
Teaching Reading to Non-English Speakers (3)

## Geology and Astronomy

TBA

ESS 521-41 Geology of the Southwestern National  
Parks (4) Permission of Instructor

ESS 591-41 Independent Study (1) Permission of In-  
structor

ESS 591-42 Independent Study (2) Permission of In-  
structor

ESS 591-43 Independent Study (3) Permission of In-  
structor

## Government and Planning

6:00 - 9:30 p.m.

GEO 527-41 Planning Law and Organization (3) Mon-  
day through Thursday

## Instructional Media

8:00 - 9:30 a.m., 10:30 a.m. - 12:00 Noon

EDM 533-41 Introduction to TV (3)

EDM 563-41 Field Study of Media Programs (3)

## Music

For counseling by telephone or office appointment, call  
or write Dr. Ira Singleton, 8:00 a.m. - 4:30 p.m., April  
25 - May 20, Swope Hall, Room 11, phone 215-436-  
2539. *All permits-to-register must be signed by Dr.  
Singleton.*

## Music Education

9:00 a.m. - 9:00 p.m.

MWB 536-41 Marching Band Workshop (3) August 8  
through 12. Additional Fee. Register  
through Workshop Director only. Do  
not use regular registration procedure or  
permit-to-register cards. See Work-  
shop Description.

## Theory and Composition

9:00 a.m. - 5:00 p.m.

MWJ 536-41 Jazz Workshop (2) August 15 through 19.  
Additional Fee. Register through Work-  
shop Director only. Do not use regular  
registration procedure or permit-to-regis-  
ter cards. See Workshop Description.

MWJ 536-42 Jazz Workshop (3). August 15 through 19. Additional Fee. Register through Workshop Director only. Do not use regular registration procedure or permit-to-register cards. See Workshop Description.

## Vocal and Choral Music

9:00 a.m. - 5:00 p.m.

VOC 539-41 Opera Workshop (3) August 22 - 26. See Workshop Description.

## Physical Education

9:00 a.m. - 12:30 p.m.

HPE 604-41 Administration and Supervisory Practices for Health, Physical Education, Recreation and Athletics (3)

## TBA

PED 682-41 Biodynamics of Human Performance (3)  
USSF candidates only

PED 683-41 Comparative Physical Education (3)

## Psychology

8:00 a.m. - 12:00 Noon

PSY 430-41 Human Sexual Behavior (3)

## Special Education

8:00 a.m. - 12:00 Noon

EDA 544-41 Classroom Management (3)



# Workshops



## Communicative Disorders

### Workshop: Speech Pathology - Advanced Clinical Phonetics

SPP 598 - 3 Credits

June 6 - 24

This workshop teaches the use of narrow phonetic transcription in the clinical setting. Practice with speech recordings obtained from clients with a variety of speech disorders will be stressed. For more information contact Dr. Michael S. Weiss, Chairperson, Communicative Disorders Department, West Chester State College, West Chester, Pa. 19380. Telephone: (215) 436-3401 or 3402.



## Education

### Workshop in Elementary Education

EDE 580 - 3 Credits

Post Session

Learning experiences are tailored to the needs of the teacher constructed learning centers and teaching aids will be explored. Assistance in coordinating materials with learning encountered in the classroom will be given by the instructor.

### Workshop in Early Childhood Education

EDE 584 - 3 Credits

Pre Session

This workshop is designed to offer the wide variety of up-to-date experiences that help prepare the early childhood teacher to provide the kind of environment and varied experiences that help the child develop to optimal growth.

### Workshop in Language Arts

EDE 585 - 3 Credits

First Three Weeks in Regular Session (8:00 - 11:00 a.m.)

The workshop focuses on methods and materials of the language arts. Various techniques and strategies will be explored to aid all children according to their abilities.

### Workshop in Affective Education

EDE 587 - 3 Credits

Regular Session

Affective, skill-oriented training program for in-service and pre-service educators, kindergarten through college level. To develop awareness and understanding of influences of emotional and behavioral changes—strategies to facilitate—developing internal supports for role flexibility in educators and students.

### **Workshop in Teaching Skills to Combat Sexism**

EDE 589 - 3 Credits

Pre Session

This course is designed (1) to create an awareness of the extent and consequences of those elements of sex-role stereotyping and sex-role socialization in curricula, and especially in teachers (and future teachers) which tend to limit the aspirations, experiences, and options of all students; and (2) to provide teachers (and future teachers) with the understandings, skills, and behaviors that can help eliminate these elements while encouraging students to develop internal support systems for counteracting and overcoming them, thus nourishing the capacities of all concerned for role flexibility and fuller participation in society.

### **Middle School Workshop**

EDF 504 - 3 Credits

Regular Session

The philosophy, administration, curriculum, staff, and facilities necessary for the most efficient educational experience in the intermediate levels of school will be presented. For more information, contact Professor Charles W. Good, Anderson Hall 305, West Chester State College, West Chester, Pa. 19380 Telephone (215) 436-2534.

### **Communication Skills for Teachers**

EDF 598 - 3 Credits

Pre Session

This workshop focuses on the teacher to student, teacher to teacher, teacher to administrator, and teacher to parent communicative relationships. An examination of classroom problems leads to a discussion of problem prevention. Strategies to be used in each participant's classroom will be emphasized. Strategies dealing with other communicative areas will be explored. For further information, contact Dr. Harry H. Deischer, West Chester State College, West Chester, Pa. 19380. Phone (215) 436-2958.

### **Workshop: Basic/Intermediate Photography**

EDM 525/526 - 6 Credits

July 11 - 22

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A basic-intermediate photography course involving classroom sessions followed by travel to Seattle and the Rocky Mountain areas of Canada, where instruction will be given during on-site photo sessions. The course will conclude in the college photo lab where students will process the pictures taken during the trip. For more information contact Mr. Redmond 436-2447.

### **Environmental Education Workshop**

EDO 511 - 3 Credits

Post Session

A field-centered learning experience, the workshop includes camping trips and field investigation. Staff from the Pennsylvania Fish Commission and the Pennsylvania Game Commission take part in some of the field expeditions. This workshop has been designed to integrate the wide range of backgrounds and interests among participants. It may be taken for credit toward certification, credit for elective, or on an auditing basis. Scholarships are available. For further information, call or write Professor John Holingjak, Coordinator of Environmental Education, West Chester State College, West Chester, Pa. 19380. Phone (215) 436-2791.

### **Workshop on Stress Management and Burn-Out Avoidance**

EDP 598 - 3 Credits

June 27 - July 15

In this workshop group exploration will be used to identify problems encountered in teaching. Particular attention will be devoted to stress management, burn-out avoidance, understanding and reducing negative behavior in the classroom, working successfully with peers and administration, and learning to live happily with oneself. For further information, call or write Dr. Thomas Williams, West Chester State College, West Chester, Pa. 19380. Phone (215) 436-2218.



## **English**

For more information on any of the Pennsylvania Writing Project Workshops, call or write Dr. Robert Weiss, Department of English, West Chester State College, West Chester, Pa. 19380. Telephone (215) 436-2281.

### **Pennsylvania Writing Project/Teaching Composition**

ENG 595 - 3 Credits

June 27 - July 15

Fee: \$246.00

Like the invitational Summer Institute, this three-week

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course is designed for teachers of writing at all levels. The course meets daily from 9:30 a.m. to 12:30 p.m. and is coordinated and taught by a team of Writing Project staff and teacher/consultants. Participants write, review approaches to the teaching of writing, study research in the field, and hear guest speakers.

**Pennsylvania Writing Project/Summer Institute (Invitational)**

ENG 597 - 6 Credits

June 27 - July 22

Fee: \$492.00

Experienced and talented teachers of writing are invited as Summer Fellows of the Pennsylvania Writing Project. The Institute meets all day, five days a week, for four weeks. Fellows examine problems in the teaching of writing, study research in the field, and write papers in various modes and from different points of view, including a position paper on the teaching of writing. Nationally recognized experts offer presentations each week. At the conclusion of the Summer Institute, the Fellows may become Teacher/Consultants of the Pennsylvania Writing Project and periodically work as paid consultants for school district inservice programs during the regular school year. Participation by invitation only.

**Pennsylvania Writing Project/Advanced Composition Institute (Invitational)**

ENG 598 - 4 Credits

July 18 - July 29

Fee: \$328.00

Intensive study and practice of several modes of writing. The course meets daily from 9:00 a.m. - 12:00 Noon, and 1:00 - 3:00 p.m. Participants will develop their own seminar presentations and will hear presentations by at least one nationally recognized expert on composition. Prerequisites: previous graduate training in rhetoric or writing, either in an extensive summer institute or its equivalent, and permission of instructor.

**Pennsylvania Writing Project/Workshop in English: Holistic Assessment of Writing**

ENG 599 - 1 Credit

June 22 - 23

Fee: \$82.00

Participants will be introduced to the theory and practice of rapid and reliable assessment of large numbers of writing samples as used in schools and colleges. Several systems of holistic scoring will be examined in relation to the functions of diagnosis, placement, ranking, exit proficiency, and program evaluation. Course meets two days from 8:45 a.m. to 4:30 p.m.

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## **Pennsylvania Writing Project/Workshop in English: The Writing Process**

ENG 599 - 1 Credit

June 29 - July 1

Fee: \$82.00

This workshop, designed to deepen teachers' understanding of the writing process, is coordinated and taught by a team of Writing Project staff and teacher-consultants and internationally recognized experts from the Writing Process Laboratory (University of New Hampshire) and Bay Area/National Writing Projects. Participants write, review approaches to the teaching of writing, study research in the field, hear guest speakers, and share ideas and concerns.



## **Foreign Languages**

### **Individualizing and Personalizing Foreign Language Instruction**

LAN 580 2 - 3 Credits

June 27 - July 1

Fee: \$82.00 per credit

A course in new theories and techniques in foreign language education will be offered during the Regular Session, 1983 for 2 or 3 credits. Possible scholarship available. Emphasis placed on Self-Instructional Language Program, utilizing specialized materials and native drill masters; however, opportunity will be provided for students to develop programs in commonly-taught languages, including a study of administrative and teaching techniques, as well as curriculum. Students must register with Ronald L. Gougher, Chairman, Department of Foreign Languages. Students may participate in another course offered in Regular Session if prior permission is acquired.

### **Foreign Language Majors Programs**

Students from other college and universities are welcome to apply for admissions to any of the majors programs listed below. Participants may begin any time that can be arranged during June and complete work in July except the Spanish Majors Program which can be arranged during July and complete work in August. For additional information on any of the programs, contact the faculty member named above for that particular program.

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### **French Majors Program**

3 - 6 Credits

June - July

Students must register with Dr. Alfred D. Roberts, Department of Foreign Languages.

### **German Majors Program**

3 - 6 Credits

June - July

Students must register with Mr. Ronald L. Gougher, Department of Foreign Languages.

Part of the program will include at least a one-week total immersion experience in which a small group of students will live together and speak nothing but German on and off campus.

### **Latin Majors Program**

3 - 6 Credits

June - July

Students must register with Mr. John Rosso, Department of Foreign Languages.

### **Spanish Majors Program**

3 - 6 Credits

July - August

Students must register with Dr. Ronald P. Lombardi, Foreign Language Department.



## **Geology and Astronomy**

### **Geology of the Southwestern National Parks**

ESS 521 - 4 Credits

Fee: Tuition plus approximately \$375.00

This course includes a field trip to the National Parks in the states of New Mexico, Arizona, Southern Utah and Colorado. The purpose of the course is to look at the geologic features of the National Parks in these states, and to develop an appreciation of the geologic history of the region. For more information contact Dr. Allen Johnson.



## **Health**

### **Health Workshop: Human Sexuality**

HEA 535 - 3 Credits

July 11 - 15

This is introduced as practical workshop enabling students to witness and discuss first hand new develop-

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ments in the field. Examples of opportunities will include visits and discussions at a Planned Parenthood Clinic, an abortion clinic, and a natural birthing facility. Also included will be meetings with professionals in the areas of rape, sex therapy, and sex education. Enrollment is on a limited basis. For further information write Dr. Robert Nye, Department of Health, West Chester State College, West Chester, Pa. 19380. Telephone (215) 436-2142.



## Music

The seventh annual Department of Music Education series of summer workshops has been planned to provide both theoretical and practical applications of contemporary music education methods and materials. The workshops have been designed to meet the needs of those already teaching music. Nationally recognized figures will serve as clinicians.

All registration is through Workshop Directors. For complete information and registration for the Kodaly, Orff, Handbell, and Music Education workshops, contact Dr. Richard Merrell, School of Music, West Chester State College, West Chester, Pa. 19380, telephone 215-436-3337 or 2539. For the Marching Band Workshop, contact Dr. James Wells, same address, telephone 215-436-2495 or 2539.

### Marching Band Clinic

MWB 536 - 3 Credits

August 8 - 12

Fee: \$60.00

The West Chester State College Marching Band Conference is a comprehensive clinic for the total marching band program. Foremost authorities in their fields of specialization offer instruction throughout the week to band directors, college, junior and senior high school students in separate clinics. This conference is considered one of the largest and most prestigious of its kind in the nation. There is a \$60 fee *in addition* to the cost of course credit. See note above regarding registration.

### Music Education Workshop

MWE 536 - 3 Credits

August 1 - 5

Fee: \$95.00

This workshop will include music materials and methods for the music teacher K-8 including general music, classroom management, choral, and micro-computer classes for junior and senior high schools. A broad spec-

# APRIL

S	M	T	W	T	F	S
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

# MAY

S	M	T	W	T	F	S
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

# JUNE

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12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

# JULY

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31						

# AUGUST

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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

# SUMMARY

## PRE SESSION

Mail Registration Deadline - May 20  
In-Person Registration Deadline - May 26  
\*Late Registration (\$15 Late Fee) - June 2

## REGULAR SESSION

Mail Registration Deadline - June 10  
In-Person Registration Deadline - June 17  
\*Late Registration (\$15 Late Fee) - June 23

## POST SESSION

Mail Registration Deadline - July 22  
In-Person Registration Deadline - July 29  
\*Late Registration (\$15 Late Fee) - August 4

# SUMMER SESSIONS CALENDAR

SUMMER SESSION CALENDAR

SESSION	DATES - Week Beginning	APRIL				MAY				JUNE				JULY				AUGUST					
PRE	Mail Registration April 18 - May 20	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29
	In-Person Registration April 18 - May 26																						
	Session Dates June 6 - June 24																						
	Mail Registration April 18 - June 10																						
REGULAR	In-Person Registration April 18 - June 17																						
	Session Dates June 27 - August 5 Holiday - July 4																						
	Mail Registration April 18 - July 22																						
	In-Person Registration April 18 - July 29																						
POST	Session Dates August 8 - August 26																						

Key     Scheduling and Payment Period     Sessions    \*Late Registration (\$15 Late Fee)



FIRST CLASS MAIL

*SUMMER 1983 SESSIONS*  
**GRADUATE COURSES**